

Energy and Commerce

California's 16th Congressional District
Student Advisory Board

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Opening Remarks

Julia Zeitlin – Chair

Hello Everyone,

I hope you are doing well. Thank you so much for joining us today to recognize the thoughtful and passionate work of the 2022 to 2023 Student Advisory Board.

I'm Julia Zeitlin, and I have deeply appreciated the opportunity to serve as Chair of the Student Advisory Board and to work with all of our driven and determined members from across the district.

This year, the SAB structure paralleled that of the Energy and Commerce Committee in Congress that Congresswoman Eshoo serves upon. We broke into six Subcommittees: Environment Manufacturing and Critical Materials, Energy Climate and Grid Security, Innovation Data and Commerce, Communications and Technology, Health, and Oversight and Investigations. Within our Subcommittees, we dove into legislative research and analysis to determine what gaps we saw in terms of the existing policies. We then created policy proposals regarding a specific topic within our area of focus. In small teams, we wrote policy proposals ranging from a proposal to amend an existing bill or to create a new federal program. Today, you will hear the proposals for changes that we as youth in the 16th Congressional District believe to be imperative for the well-being of our country and in the best interest of Congresswoman Eshoo's constituents.

While our policy proposals cover a wide-ranging array of important issues, there are key themes throughout, including climate change, inequalities in healthcare, and technology.

Many of our policy proposals expand upon the work of the Inflation Reduction Act, hoping to make this legislation more robust and accessible. We want to see the expansion of electric vehicle fleets, increased green job training and the improvement of air quality through reduction of urban sprawl.

Many of our policy proposals address inequalities in healthcare, such as lack of access in rural areas, poor health outcomes in prisons, lack of resources supporting the fallout of the opioid epidemic and the recent reversal of female bodily autonomy and reproductive rights.

As students in the Bay Area, we are deeply concerned about the worsening climate crisis, reversal of women's rights and misuse of technology. At the same time, we are grateful for the opportunity to share our voices and recommendations with Congresswoman Eshoo.

Thank you for considering our recommendations, and we look forward to ongoing work with you, Congresswoman Eshoo, to further these proposals.

Nidhi Thummalapalli – Vice Chair

Good morning, everyone, I'm Nidhi Thummalapalli, the Vice Chair of this year's Student Advisory Board, and I'd like to welcome all of you to the 16th Congressional District SAB's Final Presentation. Today's presentation marks the capstone of the hard work each of our 160 members have put into crafting 26 unique legislative proposals. Each member of the board has taken the time out of their commitments and academic responsibilities to be here every other Wednesday evening to meaningfully address societal ills that affect their communities. As I have had the honor of serving as the committee Vice Chair, I would like to extend my sincerest gratitude to each one of our members for having put their best foot forward and for committing themselves to democratic ideas and to creating a safer, more equitable, and more inclusive society.

Next, I would like to thank Congresswoman Eshoo for providing us with the space to address systemic disparities from a student lens. On behalf of the entire board, I am grateful to work under a Congresswoman who has spent decades ceaselessly fighting for climate equity, improved healthcare, and human rights policy. Congresswoman Eshoo, I hope each of these presentations are valuable in furthering your policy goals.

Working with the board and seeing passionate students come together to create their proposals has been a phenomenal experience, but one that would not have been possible without Congresswoman Eshoo's staff. To Sydney, Brennan, Yana, Nicholas, Baltazar, and Justin, thank you so much for the tireless work you have put in to ensure the board runs smoothly and for never failing to answer all the questions I throw at you. I would also like to thank our committee Chair and now a dear friend of mine, Julia Zeitlin, for her constant encouragement and for always going above and beyond in her duties. I would also like to thank our six subcommittee chairs and one subcommittee vice chair for organizing their subgroups and for always taking care of any issue that came up with care.

Lastly, I would like to thank all of you for being here. Today, you will see 26 presentations from each of our 6 subcommittees. This meeting wraps up months of hard work, and as your Vice Chair, it's been an honor serving on Congresswoman Eshoo's Student Advisory Board. Right now, let's give a big virtual round of applause for the 16th Congressional district's representative, Congresswoman Anna Eshoo!

Rural Telehealth Expansion Act

Marissa Callahan, Sophia Tian, Adrit Rao, Caoimhe Trill

I. Introduction

COVID-19 has highlighted the innate instability of rural healthcare systems built on private, for-profit hospital providers. Between 2013 and 2017, rural hospitals closed at double the rate they had in the previous years. This trend has continued to snowball, peaking at 19 closures in 2020 before sharply decreasing in 2021 following increased government aid¹. Several factors have contributed to this crisis, including uncompensated care, a declining rural population, and competition resulting from outpatient care². In particular, uncollected payments from those who cannot afford healthcare force hospitals to take on the extra costs of treatments, pushing more and more of them into negative margins. Hospitals cannot reject patients and often end up covering the costs of care for uninsured patients who cannot afford to pay treatment fees. Additionally, administrative costs from dealing with hundreds of private insurers tend to overburden smaller, rural hospitals that cannot deal with them³. Each private insurer has hundreds of different insurance codes that force many hospital staff into bureaucratic roles, diverging their ability to provide medical care to patients. In an era where disease spread has the potential to destabilize entire countries, it is highly important to address the vulnerabilities in our healthcare system: geographical access and costs. This committee will focus on the expansion of Medicare to cover telehealth in rural areas. In March 2020, the CARES Act (Coronavirus Aid, Relief, and Economic Security Act) allowed the Secretary of the Department of Health and Human Services (HHS) to temporarily expand Medicare's coverage of telehealth because of the public health emergency via the 1135 waiver⁴. The expansion allowed Medicare to cover telehealth that occurred at home; previously, it only covered telehealth used at a medical facility (such as a clinic, hospital, etc.) in rural areas⁵. In December 2022, the Consolidated Appropriations Act of 2023 extended many of the telehealth flexibilities authorized during the public health emergency through December 31, 2024⁶. We propose to permanently extend these telehealth services.

¹ Godwin et al., *Rural Hospitals Face renewed financial challenges, especially in states that have not expanded Medicaid* 2023

² Government Accountability Office, *GAO-18-634, rural hospital closures: Number and characteristics of ...* 2018

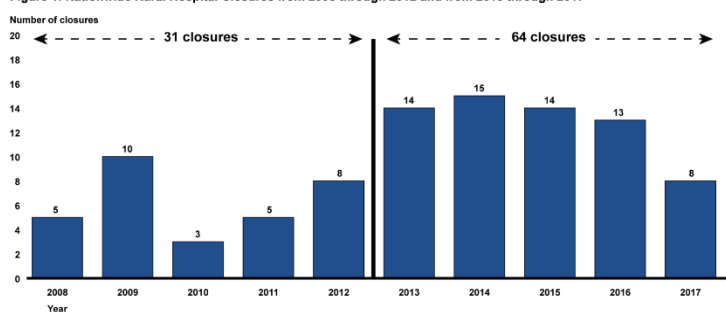
³ Public Citizen, *Rural Hospitals would be better off under Medicare for all* 2020

⁴ Cubanski & Koma, *FAQs on Medicare coverage of Telehealth* 2022

⁵ Centers for Medicare & Medicaid Services, *Fact sheet medicare telemedicine health care provider fact sheet* 2020

⁶ HHS.gov, *Telehealth policy changes after the COVID-19 public health emergency*

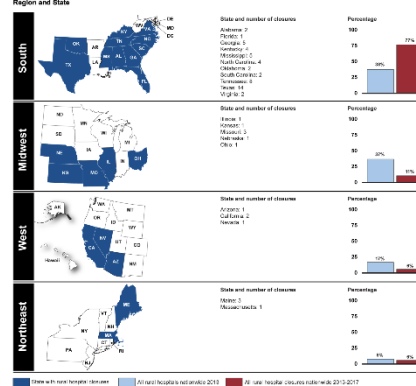
Figure 1: Nationwide Rural Hospital Closures from 2008 through 2012 and from 2013 through 2017



Source: GAO analysis of Department of Health and Human Services-funded data. | GAO-18-534

Note: Hospitals were defined as general acute care hospitals in the United States, and a hospital closure as a cessation of inpatient services. Rural was defined using the Federal Office of Rural Health Policy's definition (areas in (i) a non-metropolitan county, (ii) a metropolitan county, but with a Rural-Urban Commuting Area code of 4 or higher, or (iii) in one of 132 large and sparsely populated census tracts with a Rural-Urban Commuting Area code of 2 or 3).

Figure 2: Percentage of Rural Hospitals in 2013 Relative to Percentage of Rural Hospital Closures from 2013 through 2017, by Region and State



Source: GAO analysis of Department of Health and Human Services-funded data. | GAO-18-534

II. Policy Proposal

We propose a mechanism to enable increased rural access to telehealth services through a pilot program under Medicare. Rural communities in the United States face healthcare inequalities based on both cultural and financial constraints. Additionally, a major constraint regarding healthcare access in rural communities is the lower accessibility of clinics. Even after the introduction of the Affordable Care Act, these inequalities in healthcare persist. Telehealth has shown the potential to significantly increase the quality of life and increase healthcare affordability in rural areas during past programs such as the Rural Health Care Program. During this COVID-19 pandemic, the 1135 waiver under Medicare enabled expanded access to telehealth services in rural areas. However, this waiver solely covers a temporary expansion. By making this expansion permanent, we can significantly improve the affordability of healthcare in rural communities and the current standard of care. We aim to achieve this through the following sources: further expansion of the current program which is already in effect, allocation of taxes, and applying for government grants and loans. The Federal Communications Commission's (FCC) Rural Health Care Program can provide funding to healthcare providers to cover associated taxes with integrating telehealth services within clinics. The program offers two different funding mechanisms: the Healthcare Connect Fund and the Telecommunications Program. Other sources of potential funding for rural healthcare programs include the U.S. Department of Agriculture (USDA) and the USDA's Distance Learning and Telemedicine (DLT) program. By leveraging these various funding sources, increasing telehealth outreach and awareness, along with building off the current Medicare 1135 waiver program, we can: reduce the need for patients to travel long distances, enable healthcare providers to reach a larger population, and improve healthcare outcomes by providing more timely diagnosis and treatment in rural areas of the United States. To determine what communities are eligible for this program, the United States Census Bureau, the Office of Management and Budget (OMB), and Rural-Urban Commuting Area (RUCA) codes will be used to define "rural" with regard to expansion.

III. Legislative analysis

For someone living in a rural area, healthcare can be up to an hour away. Many hospitals have adopted a hub-and-spoke model, where smaller urgent care clinics branch away from the main, larger hospital. However, this is still not enough: transportation times are still long, and they are a major factor in patients' willingness to seek care. Whether it be because of timing or healthcare costs, potential patients opt for home treatment methods that often do not address underlying health issues. In Canada, where all healthcare operates under a single-payer model, telehealth usage increased by eightfold. Telehealth is key to disease prevention and treatment , not just because people do not have to present physical risks to others to seek care during pandemics, but also because the ease of use encourages people to report their symptoms without the hassle of going in person. Telehealth additionally allows for mass information sharing: real-time databases that are unified and controlled by the government allow physicians to monitor outbreaks and carry out screenings, a process that was invaluable to Taiwan's prevention of COVID outbreaks. Ensuring that Medicare can cover non-behavioral telehealth is necessary — current coverage plans between different private insurers are fragmented or too costly for people to afford. A united payment plan at a lower cost would eliminate uncertainties in coverage, leading to better care.

From an economic standpoint, expanding Medicare to permanently cover non-behavioral telehealth in rural areas has the potential to save millions. While expanding telehealth may be costly, funds can be drawn from the existing Medicare and Medicaid budgets. Already, during the pandemic, the government has shown that it is able to cover up to \$6 billion in telehealth payments alone — a permanent expansion of the 1135 waiver to cover non-behavioral telehealth would not be a large shift in policy⁷. Additionally, surgeries and treatments aren't the only costs that hospitals face. Administrative work makes up a large part of hospital expenses, in part due to managing all the different insurance providers. Each provider has its own codes and prices that must be carefully assigned to the patient, a costly management process that can consume up to a quarter of the budgets of rural hospitals⁹. A streamlined single-payer system would eliminate the various middlemen and turn the government into the sole insurance provider, effectively slashing expenses by avoiding the various burdens that arise from multiple payers. Full Medicare-for-All has the potential to save up to \$600 million, and an expansion to cover telehealth is likely to reap some of these benefits, although not all. Thus, instead of having to deal with multiple codes and the ensuing paperwork, rural hospitals could focus on what is most important: patient care. With rural hospitals under more and more financial pressure, any amount of relief, however small, is necessary to keep them afloat. In the long run, this has the potential to save millions of dollars by rerouting telehealth billing to just one payer.

As effective as telehealth is in providing rural areas with access to sufficient healthcare, technical difficulties and problems with internet accessibility and connection quality can emerge.

⁷ Pandemic Oversight.gov, What we learned about federal telehealth programs during the first year of the pandemic

⁸ Congress.gov, H. R. 2617 - Congress.gov

⁹ Public Citizen, *Rural Hospitals would be better off under Medicare for all 2020*

⁹ Telehealth.hhh.gov *List of Medicare Telehealth Services*

¹⁰ Telehealth.hhh.gov *Telehealth Changes to Medicare after the Covid-19 Pandemic*

Poor quality – of both audio and video – along with delays, interruptions, and dropped connections are all varying factors that will impact the quality of the healthcare delivered in the form of telehealth. Physical attention in healthcare is crucial and can be limited as a result of telehealth if measures are not taken. In the same way, rural areas are not near healthcare facilities, and many residents in rural areas do not have easy access to the Internet to ensure high-quality telehealth. Rural areas have significantly less access to broadband infrastructure than urban areas; just 19% of residents in rural areas have efficient access to more than one broadband option. The often absent access to reliable healthcare hampers rural area residents to utilize medical care through telehealth. There are current programs that aim to increase broadband coverage in rural areas to improve the quality of telehealth. Senate Bill 156 invested in expanding high-speed internet connectivity to unserved and underserved populations in California – notably rural areas. The Bipartisan Infrastructure law similarly provided \$65 billion for high-speed internet access for every American – including \$2 billion for the Tribal Broadband Connectivity Program to bring high-speed internet to tribal communities.

IV. Conclusion

The Rural Telehealth Expansion Act proposes a pilot program to enable increased rural access to telehealth through a permanent expansion of Medicare to cover non-behavioral telehealth services in rural areas. Rural communities around the United States face healthcare inequalities based on both cultural and financial constraints. Our policy proposal aims to improve the affordability of healthcare in these communities by reducing the need for patients to travel long distances, enabling healthcare providers to reach a larger population, and improving healthcare outcomes by providing more timely diagnosis and treatment. The proposal suggests leveraging various funding sources to expand the current program by allocating taxes and applying for government grants and loans. Expanding Medicare to permanently cover non-behavioral telehealth in rural areas has the potential to significantly improve the standard of care and eliminate uncertainties in coverage, leading to better care. In summary, the Rural Telehealth Expansion Act has the potential to improve healthcare in rural areas and increase access to care for vulnerable populations.

Members: Ananya Pal, Thanisha Kapur, Rohan Panchal, Lakshay Chawla, Jacqueline Larsen, Jordan Wang

Health Subcommittee: Equal Access Summary Memo

I. Introduction

Access to affordable healthcare is an essential element of a thriving society. However, the rising cost of healthcare has made it increasingly challenging for many individuals to access the care they need. In the United States, this problem is particularly acute, with millions of Americans unable to afford essential healthcare services. According to data from the Kaiser Family Foundation, 11% of Americans were uninsured in 2020, with many more underinsured, meaning they have insurance but cannot afford to use it¹⁰. To address this issue, there have been several legislative efforts to expand access to healthcare, including the Affordable Care Act (ACA) and the recent American Rescue Plan (ARP). While these policies have been successful in reducing the number of uninsured individuals, they have not solved the underlying problem of healthcare affordability for many Americans. One potential solution to this issue is the implementation of a universal basic income (UBI) principle for individuals who qualify to receive subsidized or equal access healthcare.

The Basic Income Earth Network defines a UBI as “a periodic cash payment unconditionally delivered to all on an individual basis, without means-test or work requirement,”¹¹ which can be used to cover essential living expenses like food, housing, and healthcare. Several pilot programs in the United States and abroad have shown promising results for UBI’s potential effectiveness, including reducing poverty rates and improving health outcomes. For example, in Stockton, California, a two-year pilot program provided 125 randomly selected residents with \$500 per month¹². Results showed that participants had increased job stability and decreased anxiety and depression levels, indicating that UBI can have positive effects beyond just financial security. In light of these promising results, it is time for policymakers to seriously consider the implementation of a UBI program for individuals who qualify to receive subsidized or equal access healthcare. Although the issue of rising healthcare costs needs a thorough restructuring and examination, this policy proposal has the potential to provide a temporary safety net for vulnerable populations and help address the underlying issue of access to proper healthcare.

¹⁰Jennifer Tolbert, P. D. (2023, February 7). Key facts about the uninsured population. KFF. Retrieved April 12, 2023, from <https://www.kff.org/uninsured/issue-brief/key-facts-about-the-uninsured-population/>

¹¹Howard, M. W. (2023, January 6). The U.S. could help solve its poverty problem with a universal basic income. Scientific American. Retrieved April 12, 2023, from <https://www.scientificamerican.com/article/the-u-s-could-help-solve-its-poverty-problem-with-a-universal-basic-income/>

¹² Treisman, R. (2021, March 4). California program giving \$500 no-strings-attached stipends pays off, study finds. NPR. Retrieved April 12, 2023, from <https://www.npr.org/2021/03/04/973653719/california-program-giving-500-no-strings-attached-stipends-pays-off-study-finds/>

II. The Policy Proposal

The proposed solution to unequal access to healthcare because of high insurance costs is the adoption of a nationwide Universal Basic Income for individuals who are at and below the federal poverty level. Poverty by itself lies behind the main reason why individuals are not able to access healthcare - either they can't afford to, or their spending priorities lie somewhere else when money is tight.

We are proposing the following policies:

- A policy of Universal Basic Income (UBI) nationwide to individuals who are at and below the federal poverty level. 100% of it will be used for healthcare.
- Provide a “periodic cash payment” to all marginalized and low-income individuals.
 - Deaf Families: The average cost of a hearing aid is approximately \$6000 and needs to be replaced every 2-3 years as the child grows. Though California has two coverage plans (Medicaid and HACCP) to provide coverage for hearing aids, that coverage is limited to \$1500 every three years. So, providing better coverage for deaf families would help reduce financial burdens.
 - Homeless: Homeless people often lack access to basic necessities such as food, shelter, and healthcare. A periodic cash payment can help them meet these basic needs and improve their quality of life.
 - The Incarcerated: When incarcerated individuals are released from prison, they often face significant financial challenges that can hinder their ability to successfully reintegrate into society. Providing a cash payment can help them build financial stability and reduce the risk of recidivism.

III. Legislative Analysis

The implementation of a universal basic income (UBI) principle for individuals who qualify to receive subsidized or equal access healthcare has both potential benefits and drawbacks. On the one hand, the policy could ensure that individuals who are most in need of financial assistance receive it, enabling them to afford basic necessities such as food, shelter, and healthcare. Consequently, this could improve overall well-being and reduce healthcare disparities. Additionally, a UBI could stimulate economic growth by increasing consumer spending and providing a safety net for those who may otherwise struggle to find work.

However, one potential drawback of implementing a universal basic income (UBI) principle for individuals who qualify for subsidized healthcare is the potential for increased government spending and taxes. Opponents of UBI argue that it may lead to higher taxes for all individuals, including those who do not receive a basic income. Additionally, there are concerns

that a UBI could result in government dependance and disincentivize work and education, as some individuals may view the UBI as a sufficient source of income.¹³

However, these concerns do not have valid standing because evidence suggests that a UBI can actually stimulate economic growth, which could help offset any increases in government spending. For example, a study conducted by the Roosevelt Institute found that a UBI of \$1,000 per month could increase the GDP by 12.56% over eight years¹⁴. Additionally, a UBI could be structured in a way that incentivizes work and education. For instance, a UBI could be implemented alongside job training or education programs that encourage individuals to develop new skills and pursue higher-paying jobs. Finally, some advocates argue that a UBI could actually increase entrepreneurship and innovation by providing individuals with the financial security to take risks. This is because the security of being able to allocate a set amount of money to healthcare through their UBI will allow them to venture into other areas and possibly get them out of the rut of drowning themselves in healthcare debt.

IV. Conclusion

According to Scientific American, “Providing a government-funded monthly payment to every individual would broadly lift them out of poverty, while providing millions of children a better chance at a good education, improved health and higher future earnings.¹⁵” The adoption of a UBI, let alone it being solely for healthcare for low income and marginalized groups, is a step that could significantly increase access to healthcare, when unequal access remains a drastic fact of our nation today.

Analysts say that “while the ACA was a giant step in bridging America’s health divide, merely providing health insurance isn’t enough. Insurance helps equalize access to find care, but disparities remain in the quality of that care. But there are levers to tackle that problem too, according to Amitabh Chandra, Malcolm Wiener Professor of Social Policy at the Harvard Kennedy School (HKS)¹⁶.” The ACA is clearly not enough to solve the problem of unequal access to insurance because drastic wealth gaps still exist, and the disparities in wealth and economic security are very large. Decreasing the cost of insurance still leaves it exorbitant for low income Americans. However, adopting a UBI will allow individuals to have a certain set of

¹³ Dorfman, Jeffrey. “Why Some People Oppose Expanding Government Aid To The Poor.” Forbes, January 23, 2014. <https://www.forbes.com/sites/jeffreydorfman/2014/01/23/why-some-people-oppose-expanding-government-aid-to-the-poor/?sh=3b1c151c2b85>

¹⁴ Clifford, C. (2017, September 1). A \$1,000 per month cash handout would grow the economy by \$2.5 trillion, new study says. CNBC. Retrieved April 12, 2023, from <https://www.cnbc.com/2017/08/31/1000-per-month-cash-handout-would-grow-the-economy-by-2-point-5-trillion.html>

¹⁵ Howard, M. W. (2023, January 6). The U.S. could help solve its poverty problem with a universal basic income. Scientific American. Retrieved April 12, 2023, from <https://www.scientificamerican.com/article/the-u-s-could-help-solve-its-poverty-problem-with-a-universal-basic-income/>

¹⁶ Powell, A. (2019, March 4). The costs of inequality: Money = quality health care = longer life. Harvard Gazette. Retrieved April 12, 2023, from <https://news.harvard.edu/gazette/story/2016/02/money-quality-health-care-longer-life/>

income that they will be able to use for healthcare. In the long-run, the UBI will give all individuals more ease in accessing the healthcare they need.

Group Members: Calissa Welborn, Ceylin Yenier, Isabel Seniawski, Lauren Stoffel, Sander Vonk.

Health Subcommittee: Fentanyl

Introduction

Fentanyl has increasingly become an issue across the United States. This drug is a powerful opioid flowing illegally into the United States mostly from Mexico in illegal markets. Due to its potency, it is often added to other drugs to make them cheaper and increase their potency.¹⁷ From January 2021 to January 2022, 107,375 people in the United States died of drug overdoses and drug poisonings. A staggering 67 percent of those deaths involved synthetic opioids like fentanyl.¹⁸ Many aren't aware that they are taking fentanyl because it has been added without their knowledge and it looks identical to what they are used to taking. Thus, it is essential to strengthen education on fentanyl to mitigate the dangers of these drugs.

It's also critical to increase access to emergency overdose reversal treatment. Naloxone is a life-saving drug that, when sprayed into the nose or injected, blocks the effects of opioids during an overdose.¹⁹ Naloxone is currently available from many pharmacies across the country, and the nasal spray has been recently approved over the counter. Getting access to naloxone is key to ensuring that many do not unnecessarily die due to the impacts of opioids.

However, there are other methods the Department of Education (ED) highly recommends that schools do education for their students in order to decrease opioid related deaths.²⁰ Studies have shown that programs that increase access to naloxone and drug education have successfully improved attitudes towards naloxone and decreased drug deaths and stigma, while stigma against people who use opioids is associated with higher deaths in the region.^{21,22}

There is some substantial legislation around fentanyl in the United States, with several states already implementing programs that focus on education and naloxone distribution. One significant law that is present in many states is the Good Samaritan Law, where people cannot be prosecuted if they are treated by emergency medical personnel. Fentanyl is currently scheduled as a schedule II drug because of its medical benefits, but scheduling is often ineffective and there must be a unified national effort to create tangible action in order to stop the devastation of fentanyl deaths.²³

Proposed Policy

¹⁷ <https://www.cdc.gov/stopoverdose/fentanyl/index.html>

¹⁸ <https://www.dea.gov/fentanylawareness>

¹⁹ <https://www.fda.gov/consumers/consumer-updates/access-naloxone-can-save-life-during-opioid-overdose?scrlbrkr=74e99dd8>

²⁰ <https://www.ed.gov/opioids/>

²¹ <https://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2021.306306>

²² <https://www.sciencedirect.com/science/article/abs/pii/S0277953620306894>

²³ <https://www.govinfo.gov/app/details/CHRG-115hhr25507/CHRG-115hhr25507/context>

Currently, Narcan is required on California college campuses, following California Governor Gavin Newsom's 2022 bill. We propose to expand Narcan's availability to high schools and colleges nationwide. Our two-step plan would include Narcan as a safety measure and education for preventative measures. In the United States, there is no federally mandated drug education or drug prevention education required in any type of school. However, small non-profits such as "End Overdose" have begun to educate students. "End Overdose" uses an Overdose Response Strategy Pilot Project funded by the National Association of County and City Health Officials with support from the Center for Disease Control and Prevention (CDC). This proposed legislation would include education on symptoms of overdoses, how to respond to an overdose and administer Narcan, where Fentanyl is prevalent, how much Fentanyl is considered a deadly dose, and how to test drugs for Fentanyl. This proposed legislation would be a short program that schools could implement every year, in a constricted time frame so that instructional hours would not be affected. Due to the health issues and epidemic that is coming with Fentanyl overdoses, funding for Narcan and education programs would come from the Department of Human Health Services (HHS), and the Department of Education (ED).

Legislative Analysis

The federal government has a responsibility to promote the health and well-being of its citizens and a federal requirement for drug education and the distribution of naloxone at schools would uphold these values. As this is a dual-objective proposal, the benefits and drawbacks of these ideas will be discussed separately, beginning with the federal incentivization of drug education.

Whereas prevention programs in schools are relatively cheap, the cost of substance abuse in society is steep. Drug and alcohol abuse accounts for billions lost in national revenue, due to workplace productivity losses, healthcare expenditures, law enforcement, and prosecution.²⁴ In 2019, the national cost of substance abuse, including societal harm and direct and indirect loss, was \$3.73 trillion.²⁵ In comparison, a federal drug use prevention program for all seventh graders is quoted at \$550 million²⁶, coming in at approximately 1.08% of the annual economic costs of substance use. This substance use prevention program would delay the onset of drug usage by an average of two years²⁷, which is proven to reduce addiction and substance abuse problems for adolescents in the future²⁸. Nationwide federal implementation of school prevention programs in 2002 would have reduced social costs by over \$33 billion, as well as saved state and local governments \$1.3 billion.²⁹ These prevention programs would combat substance abuse by discouraging adolescents from experimentation through education about the dangers of drug use, decreasing stigma as well as providing resources for harm reduction and

²⁴ <https://hpi.georgetown.edu/abuse/>

²⁵ <https://recoverycentersofamerica.com/resource/economic-cost-of-substance-abuse-disorder-in-united-states-2019/#Detailed-Approach>

²⁶ https://www.rand.org/pubs/research_briefs/RB6007.html#:~:text=At%20%24150%20per%20student%2C%20a,annually%20spends%20on%20drug%20control.

²⁷ <https://www.samhsa.gov/sites/default/files/cost-benefits-prevention.pdf>

²⁸ Grant & Dawson, 1997; Lynskey et al., 2003

²⁹ <https://www.samhsa.gov/sites/default/files/cost-benefits-prevention.pdf>

addiction treatment. However, education policy is traditionally enforced by state and local governments, and one could claim that this proposal is an example of federal overreach and interference in local government. While curriculum is developed on a state and local level, there are plenty of examples of federal funding for educational initiatives. The federal government has intervened in education in the past—Johnson's War on Poverty, in which he enacted the Elementary and Secondary Education Act, Obama's Every Student Succeeds Act which was passed in hopes of more comprehensive education reports³⁰—and with the continuous worsening of the opioid epidemic, it is clear America is entering a time of crisis in which something must be done. These policies were not a federal mandate, instead providing states with funding for educational programs on a conditional basis. This would be the model of the substance use education program as well.

The distribution of naloxone at schools would prevent overdose deaths and promote safer communities. As the U.S. is experiencing a substance use and overdose epidemic, exacerbated by the proliferation of 'cutting' drugs with fentanyl, action must be taken to mitigate the number of deaths. Harm reduction is important as it decreases drug-related fatalities and diseases and extends the lives of users, allowing them to have access to treatment. Despite objections to naloxone access promoting and condoning drug usage, substance use is already a rampant societal issue. Research demonstrates that opioid deaths decreased by 14 percent in states after they enacted naloxone access laws.³¹ Additionally, the distribution of naloxone at schools will destigmatize addiction, encouraging adolescents to seek treatment.

Conclusion

Fentanyl in the United States is a fatal risk to societal well-being that is only growing in magnitude. We must implement effective systems that can result in long-term wellbeing, as opposed to short-term fixes, and standardizing the approach to minimizing fentanyl deaths across the country is key to accomplishing this. Our policy will directly provide people with the tools they need to help themselves and create the conditions in which they can reach out for help if that is not enough. By combining preventative education, and providing life-saving medication across the nation, we as a Nation can combat this fatal epidemic. Long term, we see that these tools will be key to stopping the loss of human life, and previous implementations of similar policies, have been incredibly effective. This will hopefully set the stage for future cooperation in fighting drug deaths across the country, and help maximize public health.

³⁰<https://www.gse.harvard.edu/news/ed/17/08/when-it-comes-education-federal-government-charge-um-what#:~:text=It%20wasn't%20until%20the,Supreme%20Court's%201954%20Brown%20v.>

³¹ <https://nida.nih.gov/publications/naloxone-opioid-overdose-life-saving-science>

Members: Ruchi Mangtani, Araika Ramchandran, Callie Kocher, Danielle Molotsi, Kevin Vera Cruz, Victoria Mendoza Ceron

Health Subcommittee: Marginalized People Summary Memo

I. Introduction

Many correctional facilities in the United States lack proper HVAC (heating, ventilation, and air conditioning) systems, causing severe health effects to incarcerated people and prison employees. Poor HVAC systems can lead to toxic mold, respiratory illnesses, skin irritation, and other unnecessary and avoidable risks that threaten the health of already vulnerable populations. A recent impact of the poor air filtration and ventilation systems in correctional facilities was the COVID-19 outbreak in San Quentin Prison in 2020. The filters in this prison were “low-grade pleated filters not rated for viral particle removal.”³² In addition, air freely circulated from isolation cells to other cell units and windows were welded shut, blocking natural ventilation. As a result, 62.3% of incarcerated people and 27% of prison staff in the facility contracted COVID-19. According to the International Journal of Prisoner Health, “Outbreaks will no doubt occur again without robust implementation of additional levels of preparedness — improved ventilation, air filtration.”³³

Concerning health issues similarly arose in California’s Mendota prison due to the same problem: a lack of adequate HVAC systems. In this case, the problematic air conditioning system in the “record-breaking heat wave” was the culprit, leading to “toxic mold growth that allegedly led to respiratory illness among the prison’s staff.”³⁴ According to research from the National Library of Medicine, mold frequently causes asthma, respiratory infections, bronchitis, dyspnea, and other health issues.³⁵ There was also a “lack of funding for maintenance and repair” in the Mendota Prison which led to over 20 days of 100+ degree temperatures in the prison facilities.³⁶ This issue has been rampant throughout the United States. According to the Economist, at least 14 states do not have universal air conditioning, with only 40% of Florida’s correctional institutions and 30% of Texas’s offering air-conditioned housing units.³⁷ Besides

³² *Respiratory pandemic preparedness learnings from the June 2020 COVID-19 outbreak at San Quentin California State Prison.* (2022). International Journal of Prisoner Health. <https://doi.org/10.1108/IJPH-12-2021-0116>

³³ *Respiratory pandemic preparedness learnings from the June 2020 COVID-19 outbreak at San Quentin California State Prison.* (2022). International Journal of Prisoner Health. <https://doi.org/10.1108/IJPH-12-2021-0116>

³⁴ Weber, L. (2018, October 5). Federal Prison In California Faces Multiple Investigations Over Dangerous Conditions. *Huffpost*. https://www.huffpost.com/entry/california-prison-health-violations-ac-mold_n_5bb53919e4b028e1fe3a4268

³⁵ *Respiratory and Allergic Health Effects of Dampness, Mold, and Dampness-Related Agents: A Review of the Epidemiologic Evidence.* (2011, June). *Environmental Health Perspectives*. <https://doi.org/10.1289/ehp.1002410>

³⁶ *Respiratory pandemic preparedness learnings from the June 2020 COVID-19 outbreak at San Quentin California State Prison.* (2022). International Journal of Prisoner Health. <https://doi.org/10.1108/IJPH-12-2021-0116>

³⁷ McCullough, J. (2022, March 19). *Debate over air conditioning in American prisons will heat up.* The Economist. <https://www.economist.com/united-states/2022/03/19/debate-over-air-conditioning-in-american-prisons-will-heat-up>

health issues, the lack of air conditioning has been linked with increased rates of violence as well. Assistant professors Anita Mukherjee from the University of Wisconsin and Nicholas Sanders from Cornell University found that, when isolating heat from all other variables, there are 20% more instances of extreme violence than on a temperate day.³⁸ A seemingly simple improvement like air conditioning would have a major impact on the lives of people incarcerated and working in correctional facilities.

To solve this prevailing issue, the health subcommittee suggests improving HVAC systems within correctional facilities in the US and creating a grant program to encourage states to do the same. According to the United States Environmental Protection Agency (EPA), “air cleaners and HVAC filters can help reduce airborne contaminants including viruses in a building or small space.”³⁹ Furthermore, air conditioning is crucial to reducing humidity and mold. By implementing this solution, the overall health, comfort, and well-being of those in correctional facilities will improve.

There is currently no legislation in the House of Representatives to address the lack of functioning HVAC systems within prison facilities which places incarcerated individuals and prison employees at risk. As a result, Kent State explains that “at least 13 of the hottest states in the country lack universal air conditioning in their prisons.”⁴⁰ The lack of HVAC systems has resulted in dangerous, lethal, and inhumane conditions for incarcerated people and correctional officers. This proposal aims to change this environment for the betterment of all.

II. Policy Proposal

The health subcommittee proposes allocating funds toward establishing federally-mandated HVAC systems within prisons. The improved HVAC systems will include, but not be limited to the following improvements:

- Universal air conditioning
- High-efficiency air/HVAC filters that can remove airborne particles of sizes 0.1-1 micrometers, as recommended by the EPA, the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), and the Centers for Disease Control and Prevention (CDC)⁴¹

³⁸ *Could air conditioning help prevent extreme violence in prisons? Research suggests so.* (2022, August 24). NPR. <https://www.npr.org/2022/08/24/1119308590/could-air-conditioning-help-prevent-extreme-violence-in-prisons-research-suggest>

³⁹ *Air Cleaners, HVAC Filters, and Coronavirus (COVID-19).* (2023, April 5). United States Environmental Protection Agency. <https://www.epa.gov/coronavirus/air-cleaners-hvac-filters-and-coronavirus-covid-19>

⁴⁰ *Do prisons have air conditioning?* (2022, March 30). Kent State Online. <https://onlinedegrees.kent.edu/sociology/criminal-justice/community/do-prisons-have-air-conditioning#:~:text=There%20is%20currently%20no%20federal,of%20state%20jails%20and%20prisons.&text=While%20some%20prisons%20have%20air,states%20and%20with%20individual%20facilities>

⁴¹ *Air Cleaners, HVAC Filters, and Coronavirus (COVID-19).* (2023, April 5). United States Environmental Protection Agency. <https://www.epa.gov/coronavirus/air-cleaners-hvac-filters-and-coronavirus-covid-19>

- Window fans positioned beside open windows to provide proper ventilation⁴²

More guidance on the specificities of regulations around air filtering and ventilation infrastructure and recommended temperatures can be taken from the EPA, ASHRAE, and the CDC.

This proposal will primarily affect federal prisons. Funding for these HVAC systems will come from the Bureau of Prisons and the Department of Energy. To incentivize states to enact similar changes, the health subcommittee suggests establishing a grant program to fund improvements for HVAC systems in state prisons.

The issue that this policy addresses is poorly maintained and inadequate HVAC systems in prisons. Proper air filtration and ventilation is critical for reducing the spread of airborne diseases like COVID-19, and improved air conditioning systems will reduce the adverse health effects that are caused by fatal waves and rising temperatures. Investing money into employing high-quality HVAC systems would hence greatly benefit the health of people in correctional facilities.

III. Legislative Analysis

The policy presented would greatly improve HVAC systems in correctional facilities. Many incarcerated people have to work and live in an environment that has no ventilation system or air conditioning. Working in areas with inadequate ventilating systems frequently leads to significant health issues, including respiratory illnesses and worsening pre-existing conditions. Tuberculosis is one of the most prevalent respiratory illnesses present in prisons, where incarcerated people are 20 times more likely to contract it due to poor ventilation.⁴³ Improving HVAC systems would decrease these alarming health risks in prisons. By having proper airflow and cooling systems, infected particles in the air would be able to filter out and replenish the inside with cleaner, filtered air. Better ventilating systems would hence provide incarcerated people with better-circulated air to breathe in and would consequently lower the number of viruses that spread. Having fewer incarcerated people ill would lower the chances of major outbreaks in prison. In the span of a month at San Quentin State Penitentiary, infected incarcerated people with COVID-19 went from 2 to over 1,100.⁴⁴ This policy would prevent an outbreak like that from happening again.

Furthermore, proper HVAC systems would help control the temperature and humidity levels inside individual cells, preventing molds and mildew from growing. It was previously displayed at the Mendota Prison in California that because there were no proper air conditioning

⁴² *Ventilation*. (2022, June 29). Centers for Disease Control and Prevention. Retrieved April 11, 2023, from <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/improving-ventilation-home.html#:~:text=Place%20a%20fan%20as%20close,Point%20fans%20away%20from%20people>.

⁴³ *The Impact of Ventilation and Early Diagnosis on Tuberculosis Transmission in Brazilian Prisons*. (2015, October 7). The American Journal of Tropical Medicine and Hygiene. <https://doi.org/10.4269/ajtmh.15-0166>

⁴⁴ *Ventilation*. (2022, June 29). Centers for Disease Control and Prevention. Retrieved April 11, 2023, from <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/improving-ventilation-home.html#:~:text=Place%20a%20fan%20as%20close,Point%20fans%20away%20from%20people>.

systems, the staff were forced to wrap damp towels around their heads, leading to the spread of a toxic mold. Increasing HVAC systems would benefit everyone in prison.

With this being said, some may argue that incarcerated people have windows that open and hence allowing fresh air to access their cells would make additions like window fans unnecessary. However, window fans are still necessary to provide adequate ventilation and prevent overheating. For instance, during hot summers, having an open window would not help cool the temperature and or humidity, if both are the same inside and outside. There would be no source of air conditioning to cool the overall temperature of the cell.⁴⁵ High heat exposure can lead to serious health problems, such as stroke and dehydration. The same applies to the cold winter season. There would be no way to access a source of heat in the cell other than to have a filtered heating system. There would also be many risks with not having a heating system during the winter, such as an increase in the spreading of illnesses like the flu and common cold. As a result, while having access to an open window is helpful, a window fan and other utilities are still required for adequate ventilation, air filtering, and temperature.

IV. Conclusion

Incarcerated people deserve the same right to access adequate living standards as anybody else, but in the current world, they are instead inhumanely forced to face the brunt of widespread diseases and environmental issues. They additionally have little to no way to voice their concerns or change their conditions, making advocacy for their rights in the government an absolute must. The health committee hence strongly urges the implementation of this proposal in order to reduce the spread of airborne illnesses and other diseases in prisons, provide adequate air conditioning and heating, and take one more step in ensuring that human rights are not forgotten at the entrance of a prison.

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⁴⁵ *Lighting and ventilation*. (n.d.). Association for the Prevention of Torture. <https://www.apr.ch/en/knowledge-hub/detention-focus-database/material-conditions-detention/lighting-and-ventilation>

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Health Subcommittee: Mental Health

Members: Aadya Mishra, Annmary Antony, Caden Morey, Claire Wong, and Sienna Aylaian

Name: Youth Mental Health Resources Act

I. Introduction

In light of the escalating mental health crisis that has enveloped our nation, it is imperative that we allocate adequate resources to address the pressing needs of our youth who are grappling with mental health challenges. This policy proposal seeks to enhance the accessibility of existing mental health resources by disseminating them through federal agencies, namely the CDC, while also spearheading new initiatives via government-funded research to tackle overlooked aspects of mental health. It is a time-sensitive response to the debilitating impact of the crisis on our nation's youth, and advocates for sustainable solutions that can break the cycle of mental health struggles for future generations. Previous efforts in mental health reform have fallen short in meeting the growing demand for mental health resources among our youth, particularly in the aftermath of the pandemic⁴⁶. Moreover, existing legislation has failed to guarantee equitable access to these resources for diverse youth populations in our country, as evolving identity characteristics, such as gender, sexuality, ethnicity and race, continue to outpace government legislation⁴⁷. Therefore, it is paramount that we provide comprehensive services to support youth in their journey of self-discovery and address the unique challenges they face, especially related to their mental health.

II. Proposed Policy

Our proposed policy allocates (money and time frame). The bill stimulates research and awareness for youth suicide prevention. In addition to funding intersectional research, the bill outlines measures to make mental health resources more supportive and accessible on the websites of the Department of Health and Human Services, the National Institutes of Health, the Centers for Disease Control, and Indian Health Service.

Critical components to executing this bill are identifying gaps in both existing research and resources, as well as developing guidelines or criteria to ensure that updated resources will be effective. Especially since after the pandemic, specific communities and particularly schools lack the professional resources to handle the need for mental health support. With the allocated funds, improved research and guidelines would be developed to take preventative rather than solely palliative care, ensuring that students are equipped to identify and support a peer who is struggling. Because various communities experience different stressors and factors that could influence mental health, thorough research into the appropriate strategies to aptly provide support are necessary. This includes establishing checkpoints or criteria that research studies

⁴⁶ Gose, J. (2023, April 11). As Mental Health Crisis Grows, More Doors Open to Care. *The New York Times*. <https://www.nytimes.com/2023/04/11/business/mental-health-addiction-care.html>

⁴⁷ *Study Reveals Lack of Access as Root Cause for Mental Health Crisis in America*. (n.d.). National Council for Mental Wellbeing. Retrieved May 14, 2023, from <https://www.thenationalcouncil.org/news/lack-of-access-root-cause-mental-health-crisis-in-america/>

have to fulfill in order to qualify their research as fully representative⁴⁸. Unless the study or resource focuses on a specific community, general information should span multiple possible experiences and should take into account possible limitations that certain individuals might encounter when receiving support. Additionally, youth suicide prevention should be focused on recognizing earlier signs rather than only raising awareness. Disparities within suicide rates as well as possible conversation starters or supportive hotlines should be accessible and possibly implemented as educational programs that can versatily be used in schools or community centers.

Our proposed policy allocates a fund of \$50,000 to stimulate research and awareness for youth mental health. In addition to funding intersectional research, the bill outlines measures to make mental health resources more supportive and accessible on the websites of the Department of Health and Human Services, the National Institutes of Health, the Centers for Disease Control, and Indian Health Service. Presenting recent statistics and information clearly and understandably, an updated page would allow users to seek personalized help for specific issues and connect with qualified organizations focused on youth and intersectional mental health.

Within multiple communities, youth mental health needs have exacerbated during the pandemic, calling for a preventive rather palliative approach to what they are experiencing. Moreover, representation in mental health research has failed to include various groups based on age, gender, racial identity, and sexual orientation. Considering issues that are becoming more prevalent among youth, our policy would support the creation of a website page with the appropriate links and guidelines to . An apt model would be the American Federation for Suicide Prevention's, *Seize the Awkward*

III. Legislative Analysis

In recent years, especially with the development of social media, the internet, and the coronavirus, teenagers have increasingly been battling their mental health. In a rapidly changing world, today's youth is ever more at risk to experience poor mental health issues than previous issues. According to the National Institute of Mental Health, around 50% of all mental illnesses begin by age 14, and 75% begin by age 24, meaning that teenage years are the prime time to implement mental health awareness and offer resources⁴⁹. Further, suicide is the prime cause of death for individuals between 10 and 34, speaking to the depth of the mental health crisis amongst youth⁵⁰. Research from the 2019 Youth Behavioral Risk Factor Surveillance System show that nearly one out of every five teenagers seriously considered suicide, with COVID-19 having exacerbated this trend. Facing the pressure of transitioning into being fully adult, teenagers are extremely susceptible to having mental health issues, but they often lack resources or do not know how to find them to improve their mental health. In this aspect, the proposed legislation would be a key agent in addressing the teenage mental health crisis.

⁴⁸ Prabhakar, A., & Rice, S. E. (n.d.). *White House Report on Mental Health Research Priorities*. <https://www.whitehouse.gov/ostp/news-updates/2023/02/07/white-house-report-on-mental-health-research-priorities/>

⁴⁹ *Mental Illness*. (n.d.). National Institute of Mental Health. Retrieved May 14, 2023, from <https://www.nimh.nih.gov/health/statistics/mental-illness>

⁵⁰ *Mental Illness*. (n.d.). National Institute of Mental Health. Retrieved May 14, 2023, from <https://www.nimh.nih.gov/health/statistics/mental-illness>

First, revamping the CDC website would make mental health resources more accessible. While local resources and culturally sensitive mental health services are also critical for addressing mental health needs, the CDC's national scope, expertise, and ability to coordinate a national response to the mental health crisis can complement and support these efforts. The CDC can help ensure that mental health is recognized as a public health priority and can provide evidence-based guidance and resources to local communities and organizations. Currently, for one to gain information on mental health and find support on the website, they must scroll through multiple articles and navigate links. Further, the mental health resources the CDC website currently offers is vague and provides shallow advice, such as telling people to “listen without judging and show you care”⁵¹ to those struggling with their mental health. While such advice may somewhat help those needing advice on how to treat people with poor mental health, such blanket statements fall flat, and the CDC website could go farther to lessen the mental health crisis. To add on, the CDC website offers little support for those struggling with mental health besides making suggestions like “getting professional help,” “calling 911,” or providing shallow advice such as the one aforementioned. Often, these resources are not enough as they are impractical solutions, and many cannot afford professional mental help. The legislation would revamp the CDC website so that it includes free, practical mental health services, such as online support groups, the 7 Cups program, and Psych Central, which both provide valuable resources and support to individuals seeking to improve their mental health and well-being, offering direct emotional support or information to better manage mental health. Secondly, the improvement of access to resources on these websites would help with the stigmatization of mental health disorders. Many mental health stigmas prevent those struggling from reaching out and getting information; however, with easier access to mental health information and resources, the stigmas surrounding mental health would dissipate. Those struggling, especially teens, would have a much easier time finding help and information on mental health and would then be able to make proper progress in improving their mental health.

In addition to revamping the CDC website, funding the CDC to have more statistics about mental health and carry out collecting data in a less outdated manner would also be highly beneficial. In an article published by NPR in August 2020, public health experts criticized the CDC's data reporting system as “antiquated” and “slow.” Nearly all of the statistics about mental health provided by the CDC website come from 2016 or 2019, which both took place before the pandemic, and there were times where the effect of social media was lesser, with Tiktok only rising to prominence near the end of 2019 and the beginning of 2020. The lack of up-to-date data on mental health statistics makes it difficult to fully understand the extent of the problem and create effective solutions, especially as those in charge of the CDC website are adults and struggle to understand what the youth is experiencing. With more funding, the CDC can collect and analyze more data on mental health, which can help identify areas that need attention and support.

However, an increase in funding for the CDC would mean that funding would be taken from another organization, such as the FDA or Department of Homeland Security, lowering

⁵¹ *Mental Health Resources*. (n.d.). CDC. Retrieved May 14, 2023, from <https://www.cdc.gov/wtc/mentalhealth.html>

their resources. In order to prevent allocating funds from one organization to another, a possible slight tax increase would be possible, however this too would pose issues with wages and government spending. This can be combated, however, as the funding increase would only need to be slight as the increase in funding would go directly to mental health resources, statistics, and information, rather than the rest of the CDC. Thus, it would be possible to allocate a small amount of funds from various government organizations, small enough so that it does not make a large difference, which would then go to the CDC. The allocated funds would be minimal enough to where these organizations are still able to function and do their job, and would be spread out enough so that it would surmount to enough funds for the CDC.

IV. Conclusion

The prevalence of youth mental health issues, in particular youth suicides, have been growing at a rapidly increasing or over a decade⁵², with 44% teens experience symptoms of depression alone during the COVID-19 pandemic⁵³. In order to prevent this growing number of deaths, we propose an initiative to incorporate more youth mental health resources on government health websites including the Department of Health and Human Services, the National Institutes of Health, the Centers for Disease Control, and Indian Health Service. This will be conducted through the addition of a website page or tab within each of the listed government websites containing youth specific mental health resources and guidelines on how to seek said resources. Easy access to mental health resources will help youth nationwide and help quell the oncoming youth mental health pandemic.

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Reproductive Health Subcommittee: Repeal the Hyde Amendment

Members: Kylie Chen, Nidhi Thummalapalli, Angeline Wei, Abby Bullock, Kaijing Zheng, Katie Skaggs

I. Introduction

Abortion is becoming costly and inaccessible. Currently, abortion pills can cost up to \$800⁵⁴ without health insurance coverage. Additionally, according to the Guttmacher Institute, 15 states restrict access to medication abortion and an additional 12 states have a near-total ban on abortion in effect⁵⁵. Recent attempts to ban the sale of mifepristone—a pill the Food and Drug Association (FDA) has deemed to be safe and effective for over 20 years—further decrease access to abortion care.

Service	Average Cost
Abortion pills	\$800
In-clinic abortion (first trimester)	\$800
In-clinic abortion (second trimester)	\$715 - \$2,000

State-level restrictions across the U.S. have also led people seeking abortions to go out of state, adding to their growing expenses and contributing to indirect costs.

While private insurance companies usually offer coverage for abortions, the Hyde Amendment bars the use of federal funds to pay for any abortion⁵⁶ except to save the life of a woman or if the pregnancy is a result of rape or incest that was “reported promptly to a law enforcement agency or public health service.”⁵⁷ This amendment ultimately hurts those who will need the coverage the most, including those in rural or low-income areas. According to data from the University of California San Francisco’s Turnaway Study, people who were denied abortions and forcefully carried to term were significantly more likely to live in poverty, require public assistance, and not be employed full-time during the following years. Researchers concluded that “laws... restrict[ing] access to abortion may result in worsened economic outcomes” for people

⁵⁴ Planned Parenthood Federation of America. (2022, April 29). *How much does an abortion cost?* Planned Parenthood. Retrieved April 12, 2023, from <https://www.plannedparenthood.org/blog/how-much-does-an-abortion-cost>

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⁵⁶ Schroeder, C. H. (2022, September 27). *Application of the Hyde Amendment to the provision of transportation for women seeking abortions*. Retrieved April 12, 2023, from <https://www.justice.gov/d9/2022-11/2022-09-27-hyde-amendment-application-to-hhs-transportation.pdf>

⁵⁷ Congressional Research Service. (2022, July 20). *The Hyde Amendment: An Overview*. Retrieved April 12, 2023, from <https://crsreports.congress.gov/product/pdf/IF/IF12167>

who need abortions.⁵⁸ The Hyde Amendment is one of those laws—by preventing federal programs meant to increase access to necessary healthcare from covering abortion, it keeps the beneficiaries of those programs in an intergenerational cycle of poverty.

It is also imperative to note that women of color are significantly more likely to be enrolled in Medicaid compared to white women—in 2015, 31% of Black women and 27% of Hispanic women used Medicaid, as opposed to 16% of white women.⁵⁹ Thus, the Hyde Amendment not only disproportionately impacts low-income individuals, but also people of color. To ensure economic and racial equity, as well as protect reproductive freedoms, we propose that the Hyde Amendment be repealed for reconsideration, and for federal Medicaid to cover abortion costs.

II. Policy Proposal

We support the Equal Access to Abortion Coverage in Healthcare (EACH) Act’s plan to reverse the Hyde Amendment and propose that the federal government, through Medicaid, cover the cost of abortion pills and procedures for those who lack the means to pay for abortion care. Allowing federal Medicaid to cover abortion-related costs would not require additional government spending, but would change how current funds are being spent: since the “public cost of prenatal care, delivery services, and welfare totals 4-5 times the amount saved by not paying for Medicaid abortions,” the programs could reduce the public cost of low-income people carrying a pregnancy to term.⁶⁰ This measure would eliminate some of the cost barriers of getting an abortion, ultimately making a form of essential healthcare more affordable and accessible for low-income people who need abortions. We further propose that abortion coverage through Medicaid be modeled after California’s abortion coverage policies. California fully covers abortion through Medi-Cal, and requires no justification from people who desire an abortion.

III. Legislative Analysis

We argue that it is important to focus on how being denied an abortion affects the life of the person who needs to carry and raise the child. It’s also important to note the risks of giving birth, as the U.S. has the highest rate of maternal mortality compared to our peer

⁵⁸ Foster, D. G., Biggs, M. A., Ralph, L., Gerdt, C., Roberts, S., & Glymour, M. M. (2022, September). *Socioeconomic outcomes of women who receive and women who are denied wanted abortions in the United States*. Retrieved April 12, 2023, from <https://ajph.aphapublications.org/doi/10.2105/AJPH.2017.304247>

⁵⁹ Howell, M., & Starrs, A. M. (2022, August 30). *For women of color, access to vital health services is threatened*. Guttmacher Institute. Retrieved April 12, 2023, from <https://www.guttmacher.org/article/2017/07/women-color-access-vital-health-services-threatened>

⁶⁰ Henshaw, S. K., Joyce, T. J., Dennis, A., Finer, L. B., & Blanchard, K. (2009, June). *Restrictions on Medicaid funding for abortions: A literature review*. Retrieved April 12, 2023, from https://www.guttmacher.org/sites/default/files/report_pdf/medicaidlitreview.pdf

nations.⁶¹ For women of color and those in low-income communities, however, this risk heightens: Black mothers are three times more likely to die as a result of pregnancy.⁶² In these high-risk situations, having easy access to abortion is imperative. Additionally, it costs a significant amount of money to raise children—according to a Brookings Institute analysis, families will spend, on average, \$310,605 from the day a child is born until they are 18. This number varies between families, but while lower-income families will usually spend less on their children, that money makes up a larger part of the money they spend.⁶³ For families who are unable to spend that kind of money, getting an abortion will prevent them and their children from experiencing (further) financial insecurity due to forced childbirth. In fact, most people who get abortions already have children and choose to have an abortion in order to be able to better support their already-born children.⁶⁴

Supporters of the Hyde Amendment argue that using federal funding for abortion through will be a significant burden on state Medicaid programs that are already strapped for cash. However, the public cost of paying for prenatal care, delivery services, and welfare far exceeds the cost of covering abortions for those same patients. Based on a group of infants in 1991, researchers estimated that the public cost of children who were results of forced childbirth was \$23-63 million, while the estimated cost for taxpayers if Medicaid covered abortion, would have been \$6-7 million.⁶⁵

IV. Conclusion

Even before *Roe v. Wade* was overturned in 2022, reproductive freedom across the United States was limited, especially for pregnant people of color, due to financial, regional, and disability-based barriers. However, the Supreme Court's decision to overturn *Roe v. Wade* has drastically increased restrictions on reproductive freedom, as it resulted in 15 states banning abortion or severely limiting its accessibility⁶⁶. These limitations add travel expenses and other indirect costs to the already expensive process of getting an abortion.

⁶¹ Petrullo, Justina. (2023, January 30). *US Has Highest Infant, Maternal Mortality Rates Despite the Most Health Care Spending*. American Journal of Managed Care. Retrieved May 12, 2023, from <https://www.ajmc.com/view/us-has-highest-infant-maternal-mortality-rates-despite-the-most-health-care-spending>.

⁶² Centers for Disease Control and Prevention. (2023, April 3). *Working together to reduce Black Maternal Mortality*. Centers for Disease Control and Prevention. Retrieved April 12, 2023, from <https://www.cdc.gov/healthequity/features/maternal-mortality/index.html>

⁶³ Bhattacharai, A., Keating, D., & Hays, S. (2022, October 13). *What does it cost to raise a child?* The Washington Post. Retrieved April 12, 2023, from <https://www.washingtonpost.com/business/interactive/2022/cost-raising-child-calculator/>

⁶⁴ Sanger-katz, M., Miller, C. C., & Bui, Q. (2021, December 14). *Who gets abortions in America?* The New York Times. Retrieved April 12, 2023, from <https://www.nytimes.com/interactive/2021/12/14/upshot/who-gets-abortion-in-america.html>

⁶⁵ Henshaw, S. K., Joyce, T. J., Dennis, A., Finer, L. B., & Blanchard, K. (2009, June). *Restrictions on Medicaid funding for abortions: A literature review*. Retrieved April 12, 2023, from https://www.guttmacher.org/sites/default/files/report_pdf/medicaidlitreview.pdf

⁶⁶ Guttmacher Institute. (2023, April 5). *Medication abortion*. Guttmacher Institute. Retrieved April 12, 2023, from <https://www.guttmacher.org/state-policy/explore/medication-abortion>

To ensure cost does not limit reproductive freedom, and thus, lessen the disproportionately negative impact of expensive and inaccessible reproductive care on people of color, we propose that the Hyde Amendment be repealed, so federal Medicaid can cover abortions. Significant long-term impacts include:

- The expansion of reproductive freedoms and of women's rights to scores of demographics (people of color, marginalized communities, low-income communities, those who live in rural areas, and those who are physically disabled)
- A safer environment with fewer fatalities for mothers and children

Communications and Technology Subcommittee: Effects on Mental Health Subgroup

Members: Myesha Phukan, Matthew Kim, Melinda Huang, Sahngwie Yim, Aarya Bhushan, Sriteja Kataru

Introduction

After the COVID-19 pandemic, many across the country have turned to virtual psychotherapy services and other mental health apps. Although more convenient, using such platforms leaves individuals throughout the nation vulnerable to data privacy breaches, allowing sensitive health information to be shared with third parties. Companies such as BetterHelp, an online counseling service, are not bound by the HIPAA Privacy Rule, and instead only by the Federal Trade Commission Act of 1914, leaving many loopholes for companies to sell consumer data without obtaining consent. In BetterHelp's case, this resulted in data breaches of over 7 million consumers for the use of advertising.⁶⁷ As opportunities for data privacy breaches escalate along with the usage of online mental health platforms, it is imperative to offer a practical solution to the problem: creating stricter guidelines and regulations for non-HIPAA-covered entities, which would decrease the chances of serious privacy violations. Currently, the FTC Act does not require entities to obtain explicit consumer consent before obtaining and selling data, and cannot sufficiently penalize or recover penalties until a company violates a final order⁶⁸. We propose revising and amending the FTC Act to further enforce privacy protections against data privacy violations, which would bridge the gaps where patient data can often fall privy to third parties, and offer more efficient penalization tactics toward entities that are in violation of its policies. To implement these practices, we propose allocating a \$150 million boost to the FTC's current budget, specifically funding its Bureau of Consumer Protection in facilitating the aforementioned revisions.

The Policy Proposal

We propose revising and amending the FTC Act to require commercial entities to notice and obtain explicit consumer consent by allowing consumers to opt-in or opt-out before collecting and distributing sensitive health information. Companies would face immediate penalizations for violations of the guidelines and would have periodic privacy assessments done by an unbiased and competent third-party assessor approved by the Bureau of Consumer Protection.

To date, the FTC's primary enforcement tool to deter unfair or deceptive privacy and data security practices is to serve offenders with cease and desist orders and consent orders pursuant

⁶⁷ Vedova, H., Technology, T. F. T. C. O. of, Fair, L., Vizzini, D. J., Friedman, N., Price-Almeida, B., Hall, M., Bonine, M., Nobody, BetterH..., F., MarpleMSW, K., Rebecca, S., J., Benoit, S., & Fair, L. (2023, March 3). *FTC says Online Counseling Service Betterhelp pushed people into handing over health information – and broke its privacy promises*. Federal Trade Commission. Retrieved April 11, 2023, from <https://www.ftc.gov/business-guidance/blog/2023/03/ftc-says-online-counseling-service-betterhelp-pushed-people-handing-over-health-information-broke>

⁶⁸ Vedova, H., & Technology, T. F. T. C. O. of. (2022, March 11). *Federal Trade Commission act*. Federal Trade Commission. Retrieved April 11, 2023, from <https://www.ftc.gov/legal-library/browse/statutes/federal-trade-commission-act>

to the Federal Trade Commission Act of 1914, as amended. The FTC cannot bring a civil action or recover penalties for unfair practices unless a company violates a final order. In the absence of effective privacy or data security programs, these remedial measures may provide a limited incentive for companies to refrain from unfair practices until after they are caught and penalized the first time. In a recent ruling by the Eleventh Circuit Court of Appeals in *LabMD vs. FTC*, the Court stated that it is not the FTC's place to decide what specific controls a company should implement, but rather to evaluate whether those controls are sufficient to avoid unfair or deceptive practices. In response, Representative James Langevin argued that the Court's decision might limit the FTC's ability to issue orders that specify desired outcomes in order to remedy unfair and deceptive data security practices (as compared to elaborating on specific controls).⁶⁹ Moreover, unlike other unfair and deceptive business practices, negligent handling of consumer information can result in repeated, untraceable injuries that are far removed in time from the practice that caused the injury. Thus, Langevin recommended that the FTC should consider the criteria used to evaluate the § 5(n) standard of 'substantial injury to consumers in the context of failures to implement reasonable data security or privacy practices.' The FTC bears the burden of proof to demonstrate the potential for harm. If the Commission can show that sensitive data could be accessed by parties not authorized by the consumer, the injury should be presumed.

Revising the FTC Act would allow for further protection of delicate patient information in terms of virtual psychotherapy companies and applications, and reduce the risk of selling consumer data. Adding further regulations and guidelines in relation to the privacy of users would assist in reducing companies' incentivization to sell consumer data and the lack of consequences that stem from that problem. Currently, the FTC Act does not require companies to obtain consumer consent before selling data, leaving many patients vulnerable to data privacy violations of sensitive health information. Our proposed policy of revising the FTC Act, adding periodic privacy assessments done by a third party, and requiring companies to obtain consumer consent before storing or selling data, would further prevent risks of severe privacy violations and ensure the safety of patient health data. We propose requiring a clear and simple message allowing users to opt in or opt out of data selling to third parties. The idea of "notice and consent" is a principle our policy seeks to enforce. Currently, many companies "notice" users and act by gaining implicit consent, meaning they make their privacy policies available to users. However, they do not get explicit and clear consent from the consumer. Revising the act so that users must opt in or opt out allows for clearer and more informed consent toward their data being used. Moreover, we suggest implementing yearly, or as needed, privacy assessments for major telehealth companies done by an independent, unbiased, competent, third-party assessor, who would be approved by the Bureau of Consumer Protection. This would allow the FTC to better keep companies and entities accountable for following their data privacy guidelines, and reduce the common nature of civil suits brought against companies who don't, such as BetterHelp. We propose randomly selecting 10-15% of telehealth entities and/or those who provide virtual psychotherapy each year to review and assess their ability to stay in line with the amended FTC Act.

⁶⁹ Bassan, S. (2020, September 14). *Data privacy considerations for telehealth consumers amid covid-19*. Journal of Law and the Biosciences. Retrieved April 12, 2023, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7543610/>

We propose allocating \$150 million to boost the FTC's current budget in a manner that would fund its Bureau of Consumer Protection, and increase the likelihood of data privacy revisions to the FTC Act. The Consolidated Appropriations Act of 2023, increased the budget of the FTC by \$53.5 million in the fiscal year 2023 to help fund antitrust, privacy, and consumer protection work.⁷⁰ Additionally, the Merger Filing Fee Modernization Act of 2022 implements changes that are expected to result in \$1.4 billion of additional funding for the FTC and Antitrust Division.⁷¹ In FY23, the FTC received \$502.85 million in budgetary resources from Congress, to which they planned to spend \$159.09 million in total obligations.⁷² An increased boost of \$150 million would not only be feasible with the aforementioned legislation but also beneficial. It would allow the FTC to take a deeper focus on matters of consumer privacy protection work, which would theoretically decrease the amount of money spent by the department in civil suits and other cases brought against companies.

Legislative Analysis

One clear benefit of this policy is increased consumer data privacy. As more individuals source mental health help from online companies and other entities⁷³, there is a higher risk of data privacy breaches containing users' personal, and sensitive health information. Teletherapy and other mental health companies often hold highly private health data, including information about consumers' mental states and prescriptions. Our proposed policy would significantly decrease the risk of this sensitive data being misused, ensuring that companies and entities are held responsible for the data they acquire and what they do with that data. This proposal would also help set clear guidelines for an industry that is relatively novel and that resides in a legal gray area, ensuring that online mental health entities operate by the same legal and ethical standards.

However, despite these benefits, there are some limitations as well. Individuals may be worried about a lack of effectiveness due to many privacy policies being written in jargon and unclear language. Yet, establishing clear and simple guidelines, allowing users to freely opt in or out, would solve this problem. Another possible limitation is that companies might incur increased costs of operation as a result of these policies since teletherapy companies have received revenue through data selling. However, it is important to acknowledge that our proposed policy does not completely take away companies' ability to obtain data, it simply asks to obtain consent first. In addition, the selling of private personal data should not be a source of income for these

⁷⁰ House Committee on Appropriations. (n.d.). *Consolidated Appropriations Act, 2023 Summary of Appropriations by Subcommittee*. Appropriations. Retrieved April 11, 2023, from <https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/FY23%20Summary%20of%20Appropriations%20Provisions.pdf>

⁷¹ *H.R.3843 - Merger Filing Fee Modernization Act of 2022 117th ...* - congress. congress.gov. (2021, June 11). Retrieved April 11, 2023, from <https://www.congress.gov/bill/117th-congress/house-bill/3843>

⁷² *Federal Trade Commission (FTC) Spending*. USAspending.gov. (n.d.). Retrieved April 11, 2023, from <https://www.usaspending.gov/agency/federal-trade-commission?fy=2023>

⁷³ American Psychiatric Organization. (2021, May 27). New nationwide poll shows an increased popularity for telehealth services. Psychiatry.org - New Nationwide Poll Shows an Increased Popularity for Telehealth Services. Retrieved April 11, 2023, from <https://www.psychiatry.org/news-room/news-releases/new-nationwide-poll-shows-an-increased-popularity>

companies, no matter the financial benefit, because of the clear ethical implications of selling private consumer data — the very topic this proposal aims to address. Many of these mental health entities run on the campaign for privacy and protected mental health assistance. This policy would only help ensure that it comes true. Companies that are not in violation of any privacy policies would have nothing to worry about.

Conclusion

Although the increasing importance of technology has the potential to positively impact our lives, it leaves virtual mental health assistance and virtual psychotherapy more vulnerable to data breaches (in this case, of sensitive health information). This has become a large problem in our communities today, as illustrated by data privacy cases like BetterHelp and countless others. Our proposal would significantly limit the number of data privacy violations experienced by consumers who use virtual mental health platforms, and ensure a safer online environment for consumers in general. As the use of technology becomes more nuanced, our proposal further secures the privacy of sensitive health information. By holding companies accountable for any rule violations, patient data will be better protected, and won't be disclosed to third parties without patient consent. Types and uses of communication and technology have both grown exponentially over time, specifically over the COVID-19 pandemic. With their growth, many individuals have turned to virtual platforms to receive psychotherapy and other mental health help. This issue pertains to both health and technology and requires specific attention to mitigate it. Consumer and patient protection should be the utmost priority of any virtual mental health entity, and our proposal would assist in ensuring that priority is uniform across the country.

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CRYPTOCURRENCY TRANSPARENCY ACT (CTA)

COMMUNICATIONS AND TECHNOLOGY SUBCOMMITTEE

Members: Kaitlyn Don, Tanvi Garg, Cathy Sheng, Isabelle Sabsovich, Lakshya Agarwal

Introduction

There are many potential issues presented by the use of Bitcoin and the potential threats that can arise due to it being a decentralized and deregulated currency. Keeping in mind that that is the goal for the cryptocurrency, we wanted to figure out a way to make it so that Bitcoin could be used in a way to reduce criminal activity, rather than enhance it. Multiple issues have arisen with the use of Bitcoin such as the Silk Road (a hidden service on Tor which allowed users to buy products anonymously), Bitcoin not being backed by any governments or banks, there being no legal protections while using Bitcoin, and the very fact that there are high annualized volatility rates ranging anywhere from 80% to 160%, making cryptocurrency a huge risk to take. There has already been previous legislation introduced such as Bill H.R.9457 (Crypto-Asset Environmental Transparency Act of 2022), which tried to perform a study on “the environmental and energy impacts of crypto-asset mining” (Congress). While this bill would have provided transparency as to what the environmental impact of crypto is, it wouldn’t have looked at ways to increase transparency as to reveal illegal activity or ways to make crypto safer for countries to use as a way to not bypass sanctions.

Policy Proposal

We propose classifying Cryptocurrency as a financial instrument. This would require all cryptocurrency users to register and obtain the proper licenses to use and exchange cryptocurrency. Specifically, cryptocurrency should be regulated and audited by the United States Security Exchange Commission. This would include sharing information between regulatory authorities, conducting joint investigations, and imposing sanctions on non-compliant exchanges, as well as identity verification, transaction monitoring, and reporting suspicious activity. Crypto should register and exchange licenses with appropriate authorities and be treated as a financial instrument by the SEC, and all of the exchanges will be regulated and audited by SEC. Exchanges must provide detailed information for all accounts.

Legislative analysis

We acknowledge that just like with all controversial topics there are positives and as well as negatives, however we believe that this proposal in regards to the widespread illegal usage of bitcoin cryptocurrency will be most effective and limit its damaging impact. As society continues to change with the rising prevalence of cryptocurrency and specifically bitcoin it’s important to take proper measures and restrict its current and future implications in society. Some counter argument points is that this would not plug in all the holes and that potential undernetwork systems could still run rampant even with this identity-based proposal given how widespread current illegal bitcoin systems have operated. Although it is valid, we believe this would be an obvious first step that would significantly fold back the urgent consequences of this illegal activity, and although it would not erase every trace of illegal activity it is a monumental, meaningful step forward, given the outrageously high volatility rates that will only continue to climb. The current status of the bitcoin market necessitates this action, as this grows it will become an impending threat to people’s savings and people have already lost hundreds of

thousands of dollars because of fraudulent scams. Furthermore, this can not be argued on the basis of politics, as the expansion of the bitcoin market has far surpassed that boundary already, in fact that's not the only border it crossed that has international reach and the scope of this bill should also look internationally. Therefore, we should incentivize making cryptocurrencies financial instruments by promoting and offering technical support to those who do it. Although there are potential pitfalls and drawbacks as acknowledged, we believe this proposal is necessary and impactful given the current detrimental statistics of volatility, and international fraudulency.

The original designers of crypto designed it to not be regulated and controlled by governments and to make it international. However, people don't use it for political reasons anymore, mostly financial investments and this is a threat to people's savings. People have lost hundreds of thousands of dollars because of fraudulent scams.

Conclusion

The significance of our proposal is quite important as it will set in place the framework from which the use of Bitcoin and cryptocurrency will become a less fraudulent online arena for users. Furthermore, it will serve to become an introduction to government intervention in cryptocurrency.

Communications and Technology Subcommittee: Machine Learning Capability to Self Develop Memo:

Hoshita Undella, Ziana Merchant, Vishwa Prakash, Natasha Bamdad

1. Introduction

Machine Learning has been seen to adopt human biases during functioning which causes things like racism, gender bias, and harmful business interactions to surface. Additionally, there haven't been a lot of regulatory policies regarding technology, more specifically Machine Learning, as seen through the lack of policies on the Congress.gov website.

We hope this policy will result in an optimal cap, or a bias threshold as defined by assessments with testing data sets of machine learning algorithms and the jurisdiction and experience of the task force, that will be defined as the limiting amount, or threshold, of acceptable bias within a specific self-developing machine learning model. The derivation of an agreeable bias threshold for assessment is crucial as to reduce harmful bias and its adverse impacts. Most importantly, it mitigates bias by reducing susceptibility preemptively by providing the means for mitigation through a definitive and accurate bias threshold to assess by, one that also constantly averages out with every new algorithm that is assessed, as machine learning is constantly changing and so does bias detection within every, unique algorithm (bias is different within every algorithm and therefore the detection of it must adapt and grow accordingly each time) heightening the accuracy of such a threshold.

S.2559 - Deepfake Task Force Act is the one piece of legislation that has a similar theme to our proposed legislation in that it tries to regulate the threats posed by or manipulations inflicted on machine learning or artificial intelligence. However, it does not address the bias within but rather the external harm that is inflicted upon these models. Our proposal targets the root cause of misinformation or misaction as a result of these models, closing the gap.

2. Policy proposal:

The proposed solution is to set up a task force to enforce that large companies will check their algorithms for bias. After training on various testing data sets, and through other decided quantification metrics, the developers of these technologies must prove that the models are susceptible to as little bias as possible by placing under the bias threshold as defined by the task force and averaged out by the examination of bias within past algorithms.

Our policy addresses the human biases and the lack of checks in place for regulating the ethicality of self-developing machine learning technologies. Being able to regulate this is

extremely important for the safe development of new technologies so that gender, race, business, and/or other stereotypes do not persist.

This policy can be funded through acts such as the Chips and Science Act. Our policy falls within the artificial intelligence bracket of The Directorate of Technology, Innovation, and Partnerships, created by the Chips and Science Act to accelerate the development of critical technologies such as artificial intelligence, allowing our proposed policy to effectively receive funds through its part in the development of such technology. Because the artificial intelligence and machine learning bracket is so expansive and is listed in most clauses of technology funding policies, evidenced in the Chips and Science Act, our policy proposal can draw funding from a plethora of resources and government funded initiatives as it consistently falls within this bracket for each one. As our proposal further adds to the research and development of artificial intelligence through machine learning as a whole, funding can also be received from congressional policies covering research grants, technology or non technology specific, opening this policy proposal to more funding in the name of research.

Clauses such as this: “(Sec. 10358) Research areas under the grant program to support fundamental research leading to transformative advances in manufacturing technologies, processes, and enterprises that support U.S. manufacturing may include artificial intelligence and machine learning and additive manufacturing, including new material design and rapid printing techniques.” will allow funding to be acquired since our proposed policy ensures efficient and harmless development of and research on self-developing machine learning technologies.

3. Legislative analysis:

Our proposal regulates further biases from being perpetuated through machine learning and for such capabilities to be entirely in the hands of big business. Passing this bill is necessary as it demonstrates the government acknowledges the big impacts of machine learning bias as an immediate need that must be addressed, established, and built upon.

The bill allows the government to uphold democracy in situations of life and death, like in resolving criminal cases. If facial recognition detection systems falsely identify certain races as more criminal than others, it might lead to false accusations in the courtroom, leading innocent people to end up in jail and dangerous criminals to roam freely. Detecting such biases can reduce the possibility of this occurring and allow our government to keep our nation safe for all.

The government should have a say in new technologies in order to reduce the probability of loopholes/chances for misuse, as well as ensures the government’s responsibility in tackling

how this aspect of the private sector threatens the public sector (under the government's jurisdiction) on a grand scale

Our proposal allows for more ethical machine learning to be built – by resulting in the development of machine learning that can handle questions of life and death or morality, access to democracy is widened as more ethical algorithms solve for unfair technological bias, a major factor that currently inhibits democracy on a national level. Machine learning can reduce the autonomy of entire populations through bias and discrimination, often without their own knowledge, and it is exacerbated by the sheer expanse of the web. Therefore autonomy, awareness, and the freedom of choice are stripped from the people as biased machine learning continues to impose discrimination against users' wills, in turn highlighting even more the importance of our policy in promoting the development of far more ethical algorithms to solve for this adversity in restoring democracy. This has already been seen in technologies such as Delphi.

Government intervention would increase within the innovation sector to bolster Research and Development against the potential deterioration of research by biased machine learning algorithms.

How do we determine the bias cap and biometrics that will be used to measure bias? This proposal will have to be further discussed once passed because it only lays out the framework and codifies the need for regulatory examinations for bias on machine learning algorithms, not the specific details or specific methods for quantifying examinations which must be further discussed within government.

Measuring biases and ethics within machine learning, especially regarding race, gender, and other common human and/or scientific stereotypes will be a complicated process of evaluation. This complicated evaluation will ultimately serve its true purpose once the models come into widespread use with bias levels significantly under the set bias threshold recognized by the task force through our policy. So, while research and development might slow down in various sectors, it will, in the long term, lead to huge growth in those sectors once such technologies come into use after intense testing.

4. Conclusion:

The significance of the proposal is that it significantly reduces human and scientific biases within machine learning models which are key to ensuring sustainable, efficient, and optimal self-development. The long-term impact of this is that it allows for machine learning technologies to be developed more ethically and allows any current races, genders, businesses, etc being suppressed by those biases (often cognitive) to retain their place in society.

Our subcommittee is the Communications & Technology subcommittee, which, among other jurisdictions, has oversight into technology in general and cybersecurity, data privacy, and data security. With this proposal, we can limit the ways in which data can be manipulated or fed in unethical or harmful ways. This can prevent both short-term and long-term privacy concerns for not only the user but also every middle entity being affected, used, or changed by the self-developing machine learning technology. Ultimately, oversight of technology grants us the power of being able to override the processes in machine learning such as instituting task forces and bias caps.

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INTERNET ACCESS IN TITLE I SCHOOLS ACT COMMUNICATION & TECHNOLOGY SUBCOMMITTEE

Members: Zahara Agarwal, Angela Choi, Ansh Seth, Lex Abodeely, Hannah Meng, Ryan Kim

I. Introduction

Given the increasing use of technology in daily life, education has also integrated the internet, online resources, and computers into its curriculum. However, according to the US Department of Education, “19% of 4th-grade students and 12% of 8th-grade students in public schools” do not have “access to the internet or the devices required to carry out distance learning” which only increases the “achievement gap” in education- the disparity in academic performance between minority and disadvantaged students and their white counterparts. This digital divide was exacerbated during the COVID-19 pandemic, so Congress rushed to pass federal initiatives like the Emergency Broadband Benefit program and the Emergency Connectivity Fund which focused on broadband affordability. Moreover, programs like the Treasury Department’s Coronavirus Capital Projects Fund aimed to expand infrastructure, such as hardware devices, software applications, and network services. However, these programs were not sufficient in addressing the digital divide, especially in families that had multiple people who needed computers. The programs did not account for the lack of transportation allowing families to pick up school-issued computers, the tedious time it took for parents to pick up their children’s computers, and language barriers that prevented communication between schools and families. Through recent legislation in the Infrastructure Investment and Jobs Act, the Affordable Connectivity Benefit program’s funding has been extended. Essentially, this program provides internet service for over 16.8 million US households. However, despite bipartisan support, funding inevitably will eventually run out and existing outreach has limited reach, with “half of eligible households remain unaware of the program.”⁴ This program is expected to be terminated in 2024, affecting the lives of millions. Therefore, we hope that our policy will aid the effort to mitigate the digital divide between minority and disadvantaged students and their white counterparts by increasing funds for school-issued computers, thus also decreasing the achievement gap in education. Moreover, we hope that our policy facilitates simple ways for schools to track students that need school-issued computers and for families to access these school-issued computers.

II. Policy Proposal

We propose to mandate that every state allocates an additional 2% of every school’s budget to fund efforts on the district level to raise the percentage of students with their own devices and internet access. Title I schools will receive \$300 for every student they serve at the beginning of the academic year.

This policy will encourage the creation of programs within individual districts to target internet access issues within those districts, whether that be lower rates of access to the internet or low percentages of students having access to their device. The additional government funds will ease the financial strain on schools to take money out of other categories in existing budget allocations, which makes programs much easier to carry out. These additional programs will increase rates of technology access to students, which levels the playing field for both socioeconomically disadvantaged students and Title I schools.

This policy's funding will come from the national general fund.

III. Legislative Analysis

Children who face economic barriers preventing them from using technology are structurally barred from accessing internet capabilities that could provide life-changing educational and financial opportunities. Numerous studies have proven that technological access could lead to better educational and professional opportunities, as those with a technological background can pursue careers in the fields of software engineering, artificial intelligence, technician services, and more.⁷⁴ Even for students who are not aiming to pursue careers in technology-related fields, access to stable internet and basic knowledge about technology can enable them to tap into the vast array of information currently existing on the internet and communicate with equally passionate professionals halfway across the world.

In this way, a bill to reallocate school budgets to fund internet and device access along with increased funding for Title I schools would be able to revolutionize approaches to resolving technology-based inequality and the limitations it poses to financially disadvantaged individuals across the country. The problem lies in addressing the root cause of inequality in the technology sector; in order to provide a beneficial education in how to use and develop technology, students must first be able to access a functional device with stable internet service. Therein lies the importance of this bill and its effectiveness in addressing nation-wide inequality in the technology sector.

However, one potential limitation of our proposal may be its inability to address tech deserts, or areas with a lack of service. Gaining access to internet services and devices can be incredibly costly for schools with little to no access to technology in the status quo, which hinders the ability for our 2% budget proposal to be truly effective in these regions. Instead, some potential statewide policies that may be more effective at addressing lack of technology in tech deserts could involve creating satellite internet stations or constructing state WiFi routers in areas featuring many public schools. Instead of augmenting internet capabilities, the larger problem is bringing the internet to these areas in the first place.

IX. Conclusion

Our policy will result in more access to education for socioeconomically disadvantaged students, which in the long term will create more informed citizens that can make more educated decisions with their votes and are more likely to cast a ballot. It also will increase the amount of marginalized groups in education, which mitigates wealth disparities in higher education at its roots, and decreases wealth gaps because access to technology makes it easier for students to access work and become a global citizen.

⁷⁴ *Equitable access to technology for Students & Educators: Goguardian*. RSS. (n.d.). Retrieved April 12, 2023, from <https://www.goguardian.com/blog/equitable-access-to-technology>

Our subcommittee hopes to mitigate disparities in access to technology and education. Our proposal will level the playing field in the long term in political representation, education levels, and wealth through equality of opportunity.⁷⁵

⁷⁵ Bay Atlantic University June 3, University, B. A., & *, N. (2022, June 14). *How does technology impact student learning?* Bay Atlantic University - Washington, D.C. Retrieved April 12, 2023, from <https://bau.edu/blog/technology-impact-on-learning/>

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Communications and Technology Subcommittee: Transparency with Big Tech Companies

Members: Emily Gupta, Arhaan Gupta-Rastogi, Naveli Singh, Jonathan Liu, Semira Arora, Saniya Ahmed

The Universal Data Transparency Act

I. Introduction

You have likely heard of the Meta lawsuit, where the company disclosed the private information of as many as 87 million Facebook users. This data, obtained by Cambridge Analytica, a data analytics firm that worked with the Trump campaign, sparked an intense international scandal as well as a call to action for legal change in order to prevent these breaches in privacy. We hope that with our proposal, we can highlight the variety of personal data that companies can obtain, as well as ways to combat this. Although not visible to the general public, companies are able to obtain data from users such as IP addresses, social security numbers, addresses, as well as other revealing information. One example of how our policy could be implemented is when a user opens an app like Google, they should have an immediate notice mentioning what revealing information they are signing up to give as a part of using Google. We want to make this more clear with our policy. In the United States our data privacy regulations consist of various laws such as HIPAA, FCRA, FERPA, GLBA, ECPA, COPPA, and VPPA. However, these pieces of legislation fail to create universal protection for user data across the board. The Universal Data Transparency Act would require full transparency from tech companies to their customers.

II. The Policy Proposal

The Universal Data Transparency Act proposes requiring all platforms collecting user data to notify their users upon using their data for any purpose. This includes but is not limited to personalized advertisements, data analysis, and transparency about what information they keep stored. The problem we are looking to address is that big tech companies do not have clear guidelines encompassing data collection and sharing, which leads to the ability to use user data without being fully transparent with its owner. Our policy would address this issue because mandatory communication between all parties would eliminate the ambiguity that can be permitted within our current legislation.

This policy is going to be funded by the House Science, Space, and Technology Committee. The committee would allocate money towards incentives for companies to reveal and create a new page for the users to see what personal information is being revealed, therefore increasing the transparency in big tech companies. These companies would be required to notify their users regardless of the incentive, however, these funds would be beneficial in beginning the process of clear producer-consumer communication.

III. Legislative Analysis

There are a multitude of benefits, particularly for the consumers, within this legislation. To begin, it would be a much simpler process for consumers to protect their own data and ensure adequate privacy. In addition, our policy would create simplicity for consumers to track where their data is going, and thus, have the ability to hold platforms accountable. Finally, our proposal

firmly establishes uniform guidelines over platform transparency, an area that has cultivated countless controversies on its definition throughout the past.

However, as with most legislative items, there are still drawbacks. Oftentimes, user data is used to create a more enjoyable experience for those within its platform. This feature will likely experience a decrease in usage from users who immediately decide they want none of their data used after being notified of its usage. To minimize this risk of diminishing the user's experience, the legislation could incorporate measures to ask the consumer only once upon downloading the platform regarding privacy and data collection. However, some more reservations include how tech companies will likely be negatively affected by these regulations because when users are notified their data is being used (in a way they do not approve of), they may opt out of terms and conditions that they otherwise would have ignored. This results in less data for companies to analyze in order to improve consumer experience, as optional feedback is much harder to elicit. Finally, our proposal could hurt the size of consumer bases of major platforms. It is possible that users will be deterred from using certain platforms after seeing the way it uses their data, because our policy does not regulate *how* companies use data, but specific *transparency* with consumers as they use it.

Although these probable outcomes of implementing our bill are legitimate concerns, people deserve ownership of their personal data and knowledge of how it is being used. While people will likely be deterred from platforms that they believe are misusing their data, that is their right and the rights of our citizens should prevail over any big tech company. Ideally, these guidelines would not affect consumer fatigue on different social media platforms, as the legislation seeks to prioritize safety in order to improve the consumer experience. All in all, regardless of the effects of consumer response to our policy, it is ultimately each individual's choice how their data is stored and its purpose.

IV. Conclusion

Through the implementation of this proposal, trust and accountability will be established in the relationships between consumers and companies in relation to data usage and sharing. This accountability ensures that users are aware of the terms and conditions surrounding their privacy, as well as the rights they can exercise. Furthermore, this can create a framework where there is improved security, more cohesive data regulation, and a lessened probability of data breaches which have long term consequences. From a consumer perspective, data transparency is just as important as it is from a logistical and legal point of view. When a consumer is aware of the usage of their data and the liberties they have, they are more inclined to feel trust in its products and systems. By creating these beneficiary user experiences, long-term loyalty and engagement are likely to spur.

As society continues to progress, technology is becoming more prevalent and significant in every aspect of life. From business and government systems to healthcare and life saving machinery, technology is undeniably the future. The ethicality of technology and data usage is crucial to create consumer trust, further responsible use of technology, as well as obstruct data misuse and breaches. By increasing the transparency regarding data usage, a culture of positive

technology usage is being created and dictates the broader perception of technology and its uses within society.

V. Footnotes - [APA Style](#)

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CONNECT Act (Creating Opportunities for Nationwide Transit-Oriented Development)
Committee: Environment, Manufacturing and Critical Materials
Subcommittee: Air Pollution

Alex Xu, Divya Upadhye, John Plaschke, Neysa Gupta, Nicholas Zamboldi, Raagini Ganesh, Shay Brandes

I. Introduction

California has the worst air quality of any state. This air pollution leads to health issues including asthma, lung cancer, and premature death. In California alone, over 90% of citizens breathe in one or more damaging air pollutants throughout their life.⁷⁶ Factors such as housing, transit access, and density all directly and indirectly impact air quality and air pollution across the United States. For our proposal, we researched construction, transportation policy, and suburban sprawl to find a solution to this problem. We concluded that one of the most simple ways to reduce air pollution is by encouraging cities and developers to build closer to population centers and transit. When alternate methods of transit are available and people live closer to their daily activities, they use passenger-cars less, reducing the amount of emissions they produce during their daily commutes.⁷⁷ The main problem is that in America 45% of people do not have adequate access to public transit. And, if they do have access to public transit, they do not perceive it as a viable alternative to driving⁷⁸. In this way, by reducing the time spent driving by making alternatives like walking or taking public transit more accessible, we would reduce transportation emissions, one of the largest sources of air pollution.⁷⁹

II. History

There have been proposed bills with similar ideas and objectives in the past. The Urban Sprawl and Smart Growth Study Act of 2003 made Council on Environmental Quality study urban sprawl and smart growth and ensure the federal government considered the environmental effects of urban sprawl when they were reviewed by the National Environmental Policy Act of 1969.⁸⁰ The Enhancing Livability for All Americans Act of 2011 aimed to create an Office of Livability in the Office of the Secretary of Transportation to increase the quality of life through transport reform.⁸¹ The BUILD GREEN Infrastructure and Jobs Act of 2021 would allow for livability-increasing transportation projects in cities that have problems with poor accessibility; and promoting the building of transportation projects in disadvantaged communities. These proposed bills were focused on limiting rapid urban sprawl for reasons other than pollution, and never came to fruition. Our proposal fills an empty niche of increasing density for the sake of reducing pollution, something that does not appear to have been done.

⁷⁶ California State University (CSU) Chancellor's Office. "California Named State with the Worst Air Quality (Again)." ScienceDaily, ScienceDaily, 19 June 2017.

⁷⁷ Wiersma, Jake, et al. "How Does the Spatial Context Shape Conditions for Car Dependency? An Analysis of the Differences between and within Regions in the Netherlands." Journal of Transport and Land Use, vol. 9, no. 3, 2016

⁷⁸ van Exel and Rietveld determined in "Perceptions of Public Transport Travel Time and Their Effect on Choice-Sets among Car Drivers" that people are consistently unaware that public transit is an alternative to driving, even when it is available to them.

⁷⁹ The EPA reports that in 2020, Transportation emissions were responsible for 27% of Air Pollution in the U.S., 57% from light-duty passenger vehicles and 26% from medium and heavy duty trucks

⁸⁰ Library of Congress. (2003, February 24). H.R.748 - Urban Sprawl and Smart Growth Study Act.

⁸¹ H.R.2609 - Enhancing Livability for All Americans Act of 2011. congress.gov.

III. Policy Proposal

BASICS:

Our proposal involves the creation of a requirement for dense mixed-use development around new public transportation projects. The proposal would not involve any increased funds and would not put any additional burden on local or state governments. Instead, it would allow for cities to fully take advantage of new infrastructure by allowing more people to live and work around it. Cities that are large but not particularly dense would be the primary target of such a policy, as they would be required to upzone areas around new transit infrastructure to be supplied these funds from the federal government in order to receive greater federal funding for such endeavors. The requirements for increased housing and commercial density would be scaled according to the size of the city, capacity of the new transit system, and the demand around the new corridor. For example, a city building a new subway line, such as the new Silicon Valley BART extension in San José, would be required to upzone areas around the new stations. These requirements would be based on housing demand and affordability in the surrounding area, so in this example the city would likely be required to allow for significant development in the ½ mile radius of station buildings, since it is notably unaffordable and is a center for job growth in its surrounding region. On the other hand, a project like the Q Line streetcar in downtown Detroit would have lower requirements for increased density around the station because it is a more affordable area. In short, our proposal adds a requirement to receive federal funds for building new transportation projects— a requirement to upzone the surrounding area so businesses and missing-middle housing can be built.

This policy would directly lead to increased air quality because less people would be reliant on cars for transportation to work, school, or leisure. It would also allow for decreased sprawl, and car-dependency in cities since new residents would be more likely to live near transit. Instead of dictating how a city itself is planned, this policy will disincentivize sprawl by allowing for more dense neighborhoods closer to the city center, thus reducing air pollution. In this way our policy parallels the proposed Enhancing Livability for All Americans Act. However, whereas the former focuses on funding infrastructure, this would allow denser construction around said infrastructure.

IV. Legislative Analysis

This bill will provide many economic benefits for the cities it is implemented in. By authorizing mixed-use developments, businesses will be allowed to move in on the outskirts of cities, closer to the suburbs. This will revitalize the economies of the cities by bringing new developments to . The transition would be eased if we phased in the policy relatively slowly, starting with imposing them upon high-priority cities and then working downwards.

It is important to note that many cities, including San Francisco, San José, and Los Angeles, already have Transit Oriented Development (TOD) policies⁸², and this new federal policy would only build off the successes in these cities by requiring these types of developments from the federal level, as TODs already encourage the building of dense housing and commercial areas around public transport. This could set off a positive feedback loop of higher transit ridership, lower pollution, and more walkable neighborhoods.

Concerns about building in a denser manner include an increase in crime, as there have been studies implying such a correlation.⁸³ Assuming that socioeconomic factors such as poverty are not reduced, there could be a risk of higher crime rates; but the truth is that crime rate is caused by a complicated set of factors with uncertain relationships to one another.⁸⁴ It could even be argued that restricting building space and making people live closer together increases the effects of air pollution, because they are simply more likely to be exposed to said pollution.⁸⁵ However; the situation is somewhat nuanced: A 2020 study suggests that while urbanization leads to an increase in air pollution, an increase in density in an already established urban area generally decreases it.⁸⁶ As we intend to increase the density of existing cities, it is likely that such a proposal would have a positive effect. Given the fact that a 2008 study revealed that air pollution cost California 28 billion dollars, an endeavor to reduce air pollution via land use regulations and policies is overall worth considering.⁸⁷

V. Conclusion

Reducing urban sprawl is ultimately a development that should be considered in order to reduce the air pollution caused by transportation. In the long term, building in a more compact manner would improve air quality and reduce the overall spread of air pollution due to a reduction in traffic.

VI. Footnotes

⁸² “Oriented Development.” Transit, www.transit.dot.gov/TOD. Accessed 9 May 2023. Provides a concise definition of transit-oriented-development.

⁸³ STUCKY, THOMAS D., and JOHN R. OTTENSMAHNN. “Land Use and Violent Crime*.” *Criminology*, vol. 47, no. 4, 2009, pp. 1223–1264, <https://doi.org/10.1111/j.1745-9125.2009.00174.x>.

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⁸⁵ Carozzi, Felipe. “Dirty Density: Air Quality and the Density of American Cities.” *Journal of Environmental Economics and Management*, Academic Press, 12 Dec. 2022, <https://www.sciencedirect.com/science/article/pii/S0095069622001206>.

⁸⁶ Castells-Quintana, David, et al. “Density, Cities and Air Pollution: A Global View.” *SSRN Electronic Journal*, 5 Dec. 2020, <https://doi.org/10.2139/ssrn.3713325>.

⁸⁷ Thakur, Pratik. “California Air Pollution's Health and Economic Costs.” *USC Economics Review*, 7 Jan. 2022, <https://usceconreview.com/2021/10/22/california-air-pollutions-health-and-economic-costs/>.

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Nuclear Waste Subcommittee

Members: Julia Karsner, Shrey Chettiar, Maya Horton, Veer Sahasi, Kabir Buch, Brisa Garcia-Perez

Nuclear Waste Recycling Act

I. Introduction

Nuclear waste recycling has been a heavily debated novelty in the past couple of years. Unfortunately, after nuclear spent fuel is processed, over 90% of its potential energy still remains in the waste. In addition, the accumulation and disposal of nuclear waste threatens environmental risks related to nuclear accidents and social challenges related to the wellbeing of communities near nuclear facilities. Storing nuclear waste presents an inherent risk due to the ever-present possibility of accidents, and is not sustainable in the long term as waste accumulates but never stops being radioactive. In light of the growing waste problem, there is an urgent need for a comprehensive plan addressing this issue that does not involve finding safer storing options. The proposed bill provides a proper framework for nuclear waste recycling which mitigates environmental and social problems caused by waste storage. This policy seeks to promote the development and institution of nuclear waste recycling technologies in the United States. Unfortunately, past policies addressing this issue have only put off the problem and established better ways to store the nuclear waste, only building up the issue and making it a bigger problem down the road. This policy fills the gap from past bills and takes action to this ever-growing issue instead of procrastinating it.

II. Proposed Policy

The proposed policy solution for recycling nuclear waste is a comprehensive strategy aimed at ensuring the safe and effective management of this hazardous material. Our policy proposal involves the establishment of a national nuclear waste recycling program, which would be financed through a combination of government appropriations, user fees, and private investment. This program would be administered by the Department of Energy's Office of Nuclear Energy, with regulatory oversight from the Nuclear Regulatory Commission and other federal agencies. The principal objective of this program is to develop and implement advanced recycling technologies that can recover and reuse valuable materials from nuclear waste, while minimizing the amount of waste requiring long-term storage. These advanced reprocessing techniques would be determined by the newly established DoE agency after a survey of the literature, but a few that could be considered include: pyro-processing and solvent extraction, innovative approaches to waste minimization and disposal, nuclear vitrification,⁸⁸

⁸⁸John D. Vienna, "Nuclear Waste Vitrification in the United States: Recent Developments and Future Options," *International Journal of Applied Glass Science* 1, no. 3 (September 2010): accessed May 9, 2023, <https://doi.org/10.1111/j.2041-1294.2010.00023.x>.

electrorefining,⁸⁹ or reusing nuclear waste as nuclear fuel.⁹⁰ An integral advantage of this policy proposal is that it provides a sustainable solution to the nuclear waste problem, by reducing the amount of waste that necessitates long-term storage. This not only diminishes the risks of accidents and environmental contamination, but also preserves valuable resources and reduces the costs of nuclear power production. To fund this policy proposal, we recommend a combination of approaches. Firstly, we propose a modest user fee on nuclear energy production, which would finance research and development of advanced recycling technologies, as well as the construction and operation of recycling facilities. Secondly, we recommend federal appropriations to support initial investments in recycling technology development and infrastructure. Finally, we propose private investment be encouraged through tax incentives and other measures that would help to stimulate investment in the nuclear recycling industry.

III. Legislative Analysis

The main advantage of recycling nuclear waste is that it greatly reduces the amount of completely unusable waste from spent nuclear fuel. Nuclear waste is rather large in volume, with the United States alone producing around 2,000 metric tons of it a year, making it extremely difficult to store. Combined with the longevity of nuclear waste, which remains radioactive for hundreds of thousands of years, storage becomes exceedingly difficult as waste perpetually accumulates. During the recycling process, however, the plutonium and uranium is chemically separated from the waste, creating a much smaller amount (around three percent of the original quantity) of highly concentrated waste. Furthermore, not only does recycling decrease the waste's volume, but it also allows countries to use the uranium taken from the process. For example, in Japan, recycled uranium is used as fuel for a nuclear reaction that creates plutonium. For reference, the same amount of energy is created with only one gram of plutonium and one ton of oil. However, not all countries see the ability to gain more plutonium in such a positive light. The primary concern with nuclear recycling is associated with costs, as recycling nuclear waste is more expensive than storing it. Yet while a price difference exists, it is relatively insignificant: the Congressional Budget Office estimates recycling and reprocessing to be only 6% more expensive than storing it.⁹¹ While this difference would become more expensive at scale, it is relatively cheap when compared to other green-energy alternatives. What's more, the

⁸⁹ William H. Hannum, Gerald E. Marsh, and George S. Stanford, "Smarter Use of Nuclear Waste," *Scientific American* 293, no. 6 (December 2005): accessed May 9, 2023, <https://www.jstor.org/stable/26061261>.

⁹⁰ Tonni Agustiono Kurniawan et al., "Technological Solutions for Long-term Storage of Partially Used Nuclear Waste: A Critical Review," *Annals of Nuclear Energy* 166 (February 2022):, accessed May 9, 2023, <https://doi.org/10.1016/j.anucene.2021.108736>.

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advancement of the nuclear recycling industry would grow the American economy broadly, offsetting any incurred expenses from recycling.⁹²

IV. Conclusion

Adopting a nuclear waste recycling policy in the USA would bring several long-term environmental benefits that address contamination and sustainability, and promote peaceful uses of nuclear energy. Reusing valuable materials from spent nuclear fuel would reduce the amount of waste that needs to be stored, minimizing the risk of accidents and environmental contamination. Furthermore, recycling nuclear waste would significantly reduce the cost and environmental impact of nuclear energy production by reducing the reliance on costly imported uranium and conserving natural resources. Promoting nuclear waste recycling would increase the viability of and investment in nuclear power, decreasing the reliance on fossil fuels and their corresponding greenhouse gas emissions. Additionally, adopting this system could potentially support the peaceful uses of atomic energy rather than its weaponization by supporting international agreements for civilian uses and commercial use, and promote collaboration in nonproliferation military usage. Lastly, this act would spur technological advancements and create new economic opportunities in the nuclear energy sector, ensuring the USA's global leadership.

⁹² Kurniawan et al., "Technological Solutions."

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Sustainable Consumer Practices: Livestock in the Clean Air Act

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Introduction

Hamburgers are perhaps a titular cuisine of the American landscape. As a symbol of our country, they are second to perhaps eagles or football (the better football), but iconic in how Americans characterize their food consumption. Meaty, juicy, beef from an All American farm. Beef is a staple of the modern American diet, becoming ever more accessible and common in our restaurants and kitchens. One could go out, right now, and purchase a BigMac for about five dollars, give or take a dozen cents. However, the prevalence of beef consumption in our country has led to the rise of a booming livestock industry, and with it, a substantially unregulated producer of methane in the cultivation and care of cows. Methane, a greenhouse gas, has taken second billing in the conversation concerning global warming, first billing belonging to carbon dioxide. The rising levels of both in our atmosphere have presented equally dire consequences in their contribution to the warming planet. Despite only being accountable for a quarter of emissions, methane warms the planet 80 times as much as equivalent quantities of carbon dioxide over the first 20 years of atmospheric exposure.⁹³ In spite of its strength, methane has an atmospheric lifespan of about 12 years⁹⁴, whereas carbon can have a lifespan of up to 1000⁹⁵, and thus greater regulation in this growing industry presents a relatively immediate solution that is capable of displaying results within the next couple decades.

Legislative Analysis

Recently, the Environmental Protection Agency arose to prominence in proposing regulations on power plants for greenhouse gas emissions, the first of their kind. It was an instance of addressing a blindspot in E.P.A. regulation, and following suit was the Biden Administration, posing to announce greater limits. Last year, under the Inflation Reduction Act, greenhouse gasses were classified as pollutants that the E.P.A could regulate⁹⁶. The Clean Air

⁹³ *Methane: A crucial opportunity in the Climate Fight*. Environmental Defense Fund. (n.d.). Retrieved April 12, 2023, from <https://www.edf.org/climate/methane-crucial-opportunity-climate-fight#:~:text=Methane%20has%20more%20than%2080,by%20methane%20from%20human%20actions>.

⁹⁴ *Methane and climate change – Global Methane Tracker 2022 – Analysis - IEA*. (n.d.). IEA. Retrieved May 9, 2023, from <https://www.iea.org/reports/global-methane-tracker-2022/methane-and-climate-change#:~:text=Methane%20has%20a%20much%20shorter,ozone%2C%20a%20dangerous%20air%20pollutant>.

⁹⁵ Environmental Protection Agency. (n.d.) Overview of Greenhouse Gases. Retrieved May 9, 2023, from <https://www.epa.gov/ghgemissions/overview-greenhouse-gases#CO2-references>

⁹⁶ Davenport, C., & Friedman, L. (2023, April 22). E.P.A. to propose first controls on greenhouse gases from power plants. The New York Times. Retrieved May 9, 2023, from <https://www.nytimes.com/2023/04/22/climate/epa-power-plants-pollution.html?smid=nytcore-ios-share&referringSource=articleShare>

Act of 1970 (CAA)⁹⁷, which is maintained by the E.P.A., addresses a myriad of polluting industries such as transportation, storage, and solid waste facilities but fails to reach agricultural emissions. This omission of the agricultural—particularly livestock—industry has enabled unchecked pollution in comparison to its fellow methane producing industrial peers.

Policy Proposal

Our proposed solution is to set a limit on the quantity of methane emissions released by the meat industry within the country by extending the Clean Air Act's authority to regulate agricultural methane emissions. Through a cap on the amount of methane emissions a factory or company can produce yearly, the hope is to slowly decrease sessions, with the goal of impacting climate change's total effects. By subjecting the livestock industry to comply with E.P.A. emission standards, the EPA can “require the maximum degree of reduction in emissions of hazardous air pollutants.”⁹⁸

Since the E.P.A. maintains the authority to regulate methane and label it a critical pollutant under the C.A.A., we suggest that methane emission limits be placed on the agricultural industry. The EPA is not barred from making provisions to the C.A.A. in regards to animal feeding operations (AFOs), and thus it is crucial that the E.P.A specifies that methane released from cows during beef production is subject to the regulations under the C.A.A.⁹⁹

Opponents of this C.A.A. extension may argue that decreased beef production could be harmful to the economy through the loss of jobs and revenue to companies that solely focus on beef, while not significantly reducing methane emissions. However, methane emissions from cows can be reduced without curbing all beef production, and job opportunities will open up in the manufacturing of plant-based meat alternatives.¹⁰⁰ In terms of effectiveness, this type of proposal has been historically proven to work. In 2013, California created the Cap and Trade bill, which accomplished its goal of lowering emissions four years earlier than expected.¹⁰¹ The bill capped how much a factory could produce, like our proposal plans on doing with beef

⁹⁷ Air Quality Act (1967) or The Clean Air Act (CAA).” *Bureau of Ocean Energy Management*, [https://www.boem.gov/air-quality-act-1967-or-clean-air-act-caa#:~:text=The%20Clean%20Air%20Act%20\(CAA\)%20\(42%20U.S.C.,public%20health%20and%20the%20environment.](https://www.boem.gov/air-quality-act-1967-or-clean-air-act-caa#:~:text=The%20Clean%20Air%20Act%20(CAA)%20(42%20U.S.C.,public%20health%20and%20the%20environment.)

⁹⁸ *Summary of the Clean Air Act / US EPA*. (2022, September 12). US EPA. <https://www.epa.gov/laws-regulations/summary-clean-air-act>

⁹⁹ VERHEUL, J. (2011). Methane as a Greenhouse Gas: Why the EPA Should Regulate Emissions from Animal Feeding Operations and Concentrated Animal Feeding Operations Under the Clean Air Act. *Natural Resources Journal*, 51(1), 163–187. <http://www.jstor.org/stable/2488>

¹⁰⁰ Booker, Christopher, and Sam Weber. “Cow Burps Are a Major Contributor to Climate Change — Can Scientists Change That?” PBS NewsHour, 6 Mar. 2022, www.pbs.org/newshour/show/cow-burps-are-a-major-contributor-to-climate-change-can-scientists-change-that.

¹⁰¹ C2ES. California Cap and Trade. Retrieved May 9, 2023, from <https://www.c2es.org/content/california-cap-and-trade/>

production sites. If companies are being securely held accountable, it is reasonable to expect the same results from our proposal.

Conclusion

The environmental effects of manufacturing are currently kept in check by limiting emissions from factories, however on beef farms, another largely unregulated form of manufacturing is polluting the atmosphere. Regulating the methane emissions from beef production will force more sustainable patterns of consumerism. Producers will be forced to change their unsustainable habits, and eventually consumers will be presented with a range of more sustainable alternatives to wastefully grown beef, such as beef from cows raised on more sustainable diets, poultry, plant-based alternatives, and even lab grown meat equivalents. Only then, with a resilient and climate-smart source of food, can we progress forward into a challenging future governed by climate change.

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Decreasing Water Contamination Stemming from Agricultural Practices

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I. Introduction

Home to one of the most productive agricultural regions in the world, California produces over a third of the country's vegetables and three-quarters of its fruits and nuts.¹⁰² Output on such a scale requires extensive irrigation and fertilization practices which can degrade the surrounding environment. Every year, U.S. agricultural practices consume half a million tons of pesticides, 12 million tons of nitrogen, and 4 million tons of phosphorus fertilizers.¹⁰³ When surplus water from heavy rain or over-watering runs over arable land, it erodes the soil and accumulates these excess chemicals and deposits them into nearby waterways.¹⁰⁴ High levels of nitrogen and phosphorus trigger an overgrowth of algae in the water and create "dead zones," threatening aquatic life and decreasing water quality.¹⁰⁵ In 2014, toxic algal blooms in Lake Erie fueled by farm run-off poisoned drinking water for more than 400,000 people.

Nutrient runoff, also known as nonpoint source pollution, serves as the leading cause of water contamination in rivers and streams, the second-largest cause in wetlands, and third-largest cause in lakes¹⁰⁶. Severe pollution of drinking-water sources affects millions across the country. More than 90% of Americans have pesticides in their bodies, and a 2010 U.S. Geological Survey (USGS) study found that over 64% of drinking-water samples collected in agricultural and urban areas contained unhealthy nitrate levels.¹⁰⁷ Adverse health effects from such exposure include rashes, stomach or liver illness, respiratory problems, neurological effects, and more.¹⁰⁸

Our bill aims to address the issue of agricultural runoff through three main proposals: 1) stricter pesticide regulation, 2) an amendment to the Renewable Fuel Standard (RFS) to incentivize more sustainable biofuels, and 3) the adoption of more sustainable farming practices. To achieve this last aim, we propose that the Farm Service Agency (FSA)'s Conservation

¹⁰²*California Agricultural Production Statistics*. California Department of Food and Agriculture.
<https://www.cdfa.ca.gov/Statistics>

¹⁰³*Nonpoint Source: Agriculture*. (2022, July 11). United States Environmental Protection Agency.
<https://www.epa.gov/nps/nonpoint-source-agriculture>

¹⁰⁴*Protecting Water Quality from Agricultural Runoff*. (2005, March). United States Environmental Protection Agency. https://www.epa.gov/sites/default/files/2015-09/documents/ag_runoff_fact_sheet.pdf

¹⁰⁵*Industrial Agricultural Pollution 101*. (2022, July 21). Natural Resources Defense Council.
<https://www.nrdc.org/stories/industrial-agricultural-pollution-101#intro>

¹⁰⁶*Nonpoint Source: Agriculture*, 2022

¹⁰⁷*The Effects: Human Health*. (2023, March 30). United States Environmental Protection Agency.
<https://www.epa.gov/nutrientpollution/effects-human-health>

¹⁰⁸*The Effects: Human Health*, 2023

Programs include grants for adopting more sustainable practices, specifically agroforestry and drip irrigation.¹⁰⁹

II. Policy Proposal

1. Pesticide Regulation

Increasing pesticide regulation and limiting its use in the United States will help decrease the amount of pesticide contamination in water supplies near agriculture sites. A study published by the American Chemical Society found pesticides and their broken-down products, also known as pesticide transformation products, in 90% of the 442 U.S. streams researchers sampled. Contamination of pesticides in water supplies is extremely concerning. Long-time exposure to even low concentrations of pesticides results in non-carcinogenic health risks, which include anxiety, memory loss, liver damage, and a weakened immune system.

Firstly, under the Food Quality Protection Act of 1996, each pesticide registration is reviewed at least once every 15 years.¹¹⁰ Decreasing the time frame to at least once every 5-10 years will help better regulate the possibility of contamination with each pesticide. Pesticides are being developed more frequently than ever; however, there is little-to-no information on the long-term effects of these new pesticides. Lowering the time frame required for a pesticide to be reviewed allows for more in-depth research on their long term effects to arise. In addition, the Environmental Protection Agency (EPA) should have stricter guidelines on the negative effects of pesticides. This will lessen the amount of pesticides allowed to be used in agriculture in the United States and its long term negative effects.

Secondly, limiting and banning the use of certain pesticides will also help stop pesticides contaminating groundwater. The EPA allows for the use of 85 pesticides in outdoor agriculture that are currently banned in other countries due to their harmful side effects.¹¹¹ Chlorpyrifos, the most common insecticide, has been proven to affect pregnant women and children by causing intellectual disorders, asthma, and other chronic disabilities. The Obama EPA conducted a study in November 2016 where they discovered that no matter if these crops were washed, peeled, or even cracked, pesticides would still enter the nervous system. Another group of harmful pesticides that are currently still in use are organophosphates, which are known to infiltrate aquifers and reach groundwater systems as well as damage the central nervous system.¹¹² Only certain types of organophosphate pesticides have been banned, but all organophosphate pesticides have been shown to harm humans. It is clear that the United States needs to be more rigorous in banning pesticides that harm the citizens of this country.

¹⁰⁹*Conservation Programs*. United States Department of Agriculture. <https://www.fsa.usda.gov/programs-and-services/conservation-programs/index>

¹¹⁰*About Pesticide Registration*. (2023, Jan 25). United States Environmental Protection Agency. <https://www.epa.gov/pesticide-registration/about-pesticide-registration>

¹¹¹Donley, N. (2019, June 6). *New study: United States uses 85 pesticides outlawed in other countries*. Center for Biological Diversity. <https://biologicaldiversity.org>

¹¹²Fitzgerald, E. (2022, August 26). *Voices across the U.S. demand ban on brain-harming pesticide by any means necessary*. Earth Justice. <https://earthjustice.org>

Furthermore, implementing other solutions to fight pests that appear in crops will help reduce pesticide use and thus its contamination in drinking water. One alternative is biopesticides, which use microorganisms to fend off pests that occur in plants. They pose minimum harm to humans and animals and have a low possibility of contaminating the water supply.

2. Amending the Renewable Fuel Standard

The Renewable Fuel Standard (RFS) was intended to incentivize renewable fuels, effectively reducing America's dependence on fossil fuels, both domestic and foreign, and in turn decreasing the amount of greenhouse gasses in the atmosphere. Unfortunately, it has done the opposite, and instead only made the environmental goals it was meant to reach increasingly unattainable, mainly by incentivizing the wrong biofuels. The increased planting of corn for ethanol and soy for biodiesel has added to annual nationwide fertilizer use, increased water quality degradants, and caused enough domestic land use change emissions that the carbon intensity of corn ethanol produced under the RFS is no less than gasoline and likely at least 24% higher.¹¹³ The mandate has led to water pollution—reducing supply and threatening public health—and the destruction of habitat for wildlife.

Intensified corn/soy farming leads to more pesticides, chemical fertilizers, and erosion; these run off the ground, contaminating fresh water sources and collecting in lakes, bays, and other coastal waters. Excess nutrients in water bodies lead to an excess in algae growth, which has devastating consequences, including dead zones. However, run-off is not the only issue. Since the ethanol mandate was enacted, more than 7 million acres of wildlife habitat and natural areas have been converted to crops, mostly to plant corn for ethanol.¹¹⁴ Fewer than 5% of native grasslands remain, and ecologically important areas have seen devastating impacts.¹¹⁵ Monarch butterfly populations have declined by nearly 90% due to the loss of grassland habitats.¹¹⁶ People are being affected by damage to their drinking water, and nature by the destruction of its habitats. If this continues, the fight for the environment will be lost.

In its current form, the RFS provides incentives to large farms to convert natural areas and wildlife habitats into corn for biofuel, but the federal corn-ethanol mandate can be reformed to protect clean water and public health. A solution has been presented in HR 5212, the GREENER Fuels Act, which includes reforms to the Renewable Fuel Standard.¹¹⁷ The bill's provisions immediately reduce the amount of ethanol in fuel by placing a firm cap on the blend level at 9.7 percent (The fuel mix is currently over 10%). Furthermore, they prevent the

¹¹³ Lark, T. J., Hendricks, N. P., Smith, A., Pates, N., Spawn-Lee, S. A., Bougie, M., Booth, E. G., Kucharik, C. J., & Gibbs, H. K. (2022). Environmental outcomes of the US Renewable Fuel Standard. *Proceedings of the National Academy of Sciences*, 9. <https://www.pnas.org/doi/10.1073/pnas.2101084119>

¹¹⁴ Wright, C. K., Larson, B., Lark, T. J., & Gibbs, H. K. (2017). Recent grassland losses are concentrated around U.S. ethanol refineries. *Environmental Research Letters*, 4, 044001. <https://doi.org/10.1088/1748-9326/aa6446>

¹¹⁵ Planning and Conservation League. (n.d.). *Reforming The Corn-Ethanol Mandate* / Planning and Conservation League. Planning and Conservation League. Retrieved May 9, 2023, from <https://www.pcl.org/campaigns/reform-corn/>

¹¹⁶ Planning and Conservation League, n.d.

¹¹⁷ Text - H.R.5089 - 117th Congress (2021-2022): Next Generation Fuels Act of 2021. (2021, August 25). <https://www.congress.gov/bill/117th-congress/house-bill/5089/text>

expansion of E15 (gasoline that is 15% ethanol), because studies have highlighted that increased use of ethanol in gasoline leads to higher smog levels, particularly in heavily populated areas.

The provisions wind down the corn ethanol mandate, stepping down the amount of ethanol in the nation's fuel supply and incentivizing a real transition to more sustainable fuels. While the increased planting of corn and soy has led to environmental degradation, the next generation of cellulosic biofuels (made from grasses, trees, and wastes) has the potential for positive environmental outcomes. Given that the RFS has not led to the expansion of cellulosic biofuels at nearly the pace envisioned by the law's backers, placing greater emphasis on these technologies while decreasing the production of ethanol and biodiesel is crucial. Moreover, the bill proposes to remedy vast habitat damage by investing more than \$10 billion over 10 years to restore wildlife habitat that has been converted to crops. The reforms would prevent further habitat from being destroyed by enforcing existing land protections that are supposed to prevent converted land from qualifying as a source of biofuel material. This focus on protection, conservation and restoration has the potential to turn around the future of wildlife habitats.

Ultimately, the reforms in the GREENER Fuels Act are a precise example of what is needed: they protect the country's health, drinking water, wildlife, and economy by halting the destructive land-conversion practices driven by the ethanol mandate and incentivizing a transition to cleaner, more sustainable fuels.

3. Adopting Agroforestry

Another possible solution to pesticide runoff is agroforestry, which the United States Department of Agriculture (USDA) defines in five categories¹¹⁸: windbreaks, riparian forest buffers, alley cropping, silvopasture, and forest farming. These strategies effectively mitigate many of the concerns of agricultural runoff, such as soil depletion and quality as well as animal waste and pesticide runoff. The easiest to implement of all of these strategies is alley cropping, also called intercropping. Alley cropping consists of planting trees on the edges of a field of bushes or a crop. Usually there is an alley between the rows of trees or crops that can be used to grow grasses or other smaller bush crops. Though alley-cropping is harder to manage than monoculture farming, it has many lasting effects that are positively affecting our environment. Alley cropping can help reduce CO₂ by pooling carbon in the ground, reduce the amount of nutrients that leach into groundwater, improve soil quality, mitigate soil erosion, and even possibly reduce the amount of pests with little to no pesticide use.¹¹⁹

Windbreaks and riparian forests are also effective in reducing soil erosion and increasing crop yield by producing healthier plants. The trees and shrubs planted in windbreaks and riparian forest buffers can also be used as a secondary income for landowners, as the trees can be used for timber and berry bushes for its fruit. This will also draw pollinators to these areas, an important benefit since most common pollinators are beginning to become endangered due to habitat destruction. The effects of windbreaks and riparian forest buffers don't end there: the use of these strategies can also help mitigate the amount of CO₂ in the air by acting as a storage of

¹¹⁸*Agroforestry Practices*. United States Department of Agriculture. <https://www.fs.usda.gov/nac/practices>

¹¹⁹MacFarland, K. (2017, March). *Alley Cropping: An Agroforestry Practice*. United States Department of Agriculture. <https://www.fs.usda.gov/nac/assets/documents/agroforestrynotes/an12ac01.pdf>

carbon. A USDA study conducted in the Central Valley reports that riparian forests held about 18% of the farm's total carbon, despite only occupying 6% of the farm's area.¹²⁰

Silvopasture and forest farming are difficult to implement and fall outside of our focus of cropland and thus will not be covered in this proposal.

Using the agroforestry methods in this proposal will improve the soil quality and reduce soil erosion, which will in turn decrease the amount of runoff as well as the harmful qualities of agricultural run off. Agroforestry also has the possibility to store more carbon in the ground rather than our atmosphere, decreasing the amount of CO₂ present.

4. Shifting Irrigation Methods

Another possible solution to nutrient runoff includes a switch to more sustainable irrigation systems. Flood irrigation, one of the oldest methods of watering fields, involves farmers sending water down furrows between rows of plants. Due to the imprecise and uncontrolled nature of this system, excess water erodes the soil, gathers pollutants, and carries them to nearby waterways. However, since furrow irrigation is cheap and simple, they remain popular throughout the country. In 2015, farmers in the U.S. irrigated about 23,300 thousand acres out of 63,500 thousand of land with flood irrigation.¹²¹

More sustainable methods than flood irrigation include drip (or micro) irrigation, in which water runs through pipes slightly above or below the soil and drips through small holes onto the leaves and roots of the plants. Benefits of drip irrigation include a reduced need for water, fertilizer, and labor while still increasing crop yield. Because of its ability to apply water in a more precise and targeted manner, it can directly add water and fertilizer to plants, reducing both the runoff of water and the level of excess chemicals in the water.¹²² In 2015, only 5,490 thousand acres out of 63,500 thousand acres with drip irrigation, and thus we hope to increase the use of this more efficient irrigation system.¹²³ Part of the subsidies offered by our proposed government grant would fund the construction of the needed infrastructure and aid farmers in adjusting to it. Because the adoption of drip irrigation would decrease costs previously expended on labor and materials such as fertilizer and water, it would offset the additional spending required for its implementation.

III. Legislative Analysis

People across the United States consistently struggle to access basic necessities such as water, food, and shelter; horrifying water crises such as those seen in Flint, Michigan or Jackson, Mississippi continue to occur. While the government attempts to respond as quickly as it can, people directly affected by this genuinely do not have the time to wait for a government

¹²⁰Bentrup, G., MacFarland, K. *Agroforestry*. United States Department of Agriculture.
<https://www.fs.usda.gov/ccrc/topics/agroforestry>

¹²¹ *Irrigation Methods: Furrow or Flood Irrigation*. (2018, June 13). U.S. Geological Survey.
<https://www.usgs.gov/special-topics/water-science-school/science/irrigation-methods-furrow-or-flood-irrigation>

¹²² *Irrigation Methods: Drip or Microirrigation*. (2018, June 11). U.S. Geological Survey.
<https://www.usgs.gov/special-topics/water-science-school/science/irrigation-drip-or-microirrigation>

¹²³ *Irrigation Methods: Drip or Microirrigation*, 2018

response, which is exactly why this policy is necessary. As mentioned above, we propose tackling this issue by narrowing down on the worst form of pollution in the United States, agricultural pollution, and utilizing federal grants to incentivize farmers.

Although inadvertent, farmers aid in an estimated 80% of pollution in marine ecosystems.¹²⁴ By providing farmers with grants, we motivate them to truly help the environment and the human population; farmers must now focus on pesticide regulation, irrigation methods, cover-cropping, and renewable fuel in order to receive these federal funds. Not only does this encourage farmers to implement environmentally-friendly practices, but they themselves also save money with these processes.

For instance, farmers need not pay the hefty bill on pesticides with the new regulations. In 2018 alone, it was estimated that over 15 billion dollars were spent on pesticides in the agriculture industry.¹²⁵ Farmers also cut down on water bills; with the average farmer sometimes paying up to \$2,200 per acre in California, water-saving irrigation techniques allow for a sharp decline.¹²⁶ New irrigation methods permit farmers to allocate funds elsewhere; they can discover new ways to store manure, which also causes water contamination, or other efficient ideas to maximize profits.

Without throwing their money at harmful chemicals that seep into their own water, farmers can instead use that money wisely on better farming techniques. Chemicals such as nitrates and phosphates typically enter water systems through runoff. Not only do these chemicals affect farmers and the communities surrounding farms, but they also affect everyone who then consumes the crops on the farm. Although farmers typically utilize pesticides to create a greater yield of crops during the year, the imminent negative effects can be easily replaced with positive ones. Biopesticides, environmentally-friendly alternatives to artificial pesticides, create the same crop yield, according to the EPA¹²⁷. Not only do biopesticides naturally decompose into the soil, but they also specifically target insects, pesticides, or other combatants to destroy them before they affect the crops.

Reducing the amount of corn ethanol farmers use as fuel simultaneously reduces their carbon footprints. With climate change at the forefront of our world today, every industry and every person needs to take action wherever they can; regulating the amount of ethanol in gasoline is just one step in the right direction. Seeing as farmers contribute, either knowingly or not, to most of the ocean's pollution, they need to recognize their faults.

¹²⁴ Lindwall, C. (2022, July 21). *Industrial Agricultural Pollution 101*. Retrieved April 3, 2023, from <https://www.nrdc.org/stories/industrial-agricultural-pollution-101>

¹²⁵ Gro Intelligence (2018, June 10). *A Look at Fertilizer and Pesticide Use in the US*. Retrieved April 3, 2023, from <https://www.gro-intelligence.com/insights/a-look-at-fertilizer-and-pesticide-use-in-the-us>

¹²⁶ Aquaoso (2021, May 17). *California Agricultural Water Prices*. Retrieved April 3, 2023, from <https://aquaoso.com/water-trends/california-agricultural-water-prices>

¹²⁷ Environmental Protection Agency (2022, October 28). *The Sources and Solutions: Agriculture*. Retrieved April 3, 2023, from <https://www.epa.gov/nps/nonpoint-source-agriculture>

Understanding the problem is the first milestone; once we diagnose the problem, we can now solve it. We are proposing a package of solutions for everyone to take into account, and any combination of these new propositions would help the water contamination caused by agriculture. Giving farmers grants to specifically pay for the adoption of more sustainable farming practices removes the stress off of their shoulders; a large reason that many farmers use pesticides is the convenience of price. With government funding, the farmers no longer have to worry about expensive bills, and they can genuinely focus on growing healthy food that is not contaminated with chemicals. This bill acknowledges pesticide regulation, agroforestry, renewable fuel standards, and new irrigation systems that all bring us one step closer to eradicating pollution caused by agriculture. We have diagnosed it, but now it is up to the farmers and to everyone who votes on this bill to lead us to that first step.

IV. Conclusion

In conclusion, due to ineffective and harmful agricultural practices, action must be taken in order to mitigate critical water contamination. To do so, we propose measures to regulate pesticide usage around agricultural sites and fuel sources. Moreover, by providing transparent information, legislators and citizens alike are able to efficiently address the issue of water contamination. Currently, many aquatic ecosystems are being severely harmed by contaminated water. Furthermore, many of our citizens struggle with inaccessibility to clean water, a physiological human right. Therefore, we urge you to prevent further irreversible water contamination through the regulation of detrimental agricultural practices and the amending of the renewable fuel standard.

Innovation, Data, and Commerce Subcommittee - Biometric Data Privacy Summary

Memo

Written by Maddon Hoh-Choi (Co-Chair), Alex Gani (Co-Chair), Nikitha Srinivasan, Atulya Weise, Devansh Malik, Divij Motwani, Pranav Chakravarthy, Jillian Ascher, Ashir Rao, Ramit Goyal

Introduction:

Biometric data can never be changed and once it's compromised, then it's always compromised and the information cannot be changed nor saved.

Our proposal outlines standards for companies in the storage of data. Companies should ensure data privacy by having security measures, data governance and making sure each is in compliance with regulations. Companies must have strong security to protect sensitive information. One important aspect is strong authentication ways to who can access data of others. Encryption helps protect stationary data and data in motion. By increasing firewalls and antivirus software, it can reduce external threats. To avoid theft of data, clear security controls must be in place like a clear data retention/destruction policy. Clear Procedures must be in place regarding collection of data, storage and deletion. There should also be regular security audits and risk assessments and it is very crucial to find all potential threats. All organizations must also comply with regulations such as CCPA and HIPAA and make sure only authorized individuals can access individuals' data. There should also be a plan of data breach by notifying affected parties and investigation for said event.

Our proposed plan expands on the BIPA and HIPAA to create a law that protects biometric safety, specifically in terms of facial recognition and fingerprints. Using the privacy rule, the security rule, and the breach notification rule from HIPAA, our policy must notify an individual if their biometrics are being shared in addition to stricter policies and verifications of companies following the storage of data which is stated above.

When looking at previous policies, Illinois' state law on biometric data privacy, BIPA or the Biometric Information Privacy Act, outlined the standards set for companies in the most comprehensive way and provided a clear course of action to take if those standards were not followed.¹²⁸ While BIPA lays the groundwork for what a biometric data privacy bill can look like, it was passed in 2008, and no amendments have been passed that reflect the new developments in biometric data technology. Along those lines, our proposed bill aims to create a federal biometric data privacy bill that reflects the capabilities of current technology.

¹²⁸ *Biometric data privacy laws and lawsuits*. Bloomberg Law. (2023, January 25). Retrieved April 10, 2023, from <https://pro.bloomberglaw.com/brief/biometric-data-privacy-laws-and-lawsuits/>

Another previous policy is the Health Insurance Portability and Accountability Act of 1996, also known as HIPAA¹²⁹, which is a federal law that protects personal patient health information and ensures that it is not disclosed without the patient's consent, thereby creating patient doctor confidentiality. HIPAA is divided into three sections: the privacy rule, the security rule, and the breach notification rule. HIPAA was successful for many decades and it was created before the current technologies, making it a bit outdated. This has raised numerous concerns about the security of personal biometric data such as fingerprints and facial recognition data. Our proposed bill aims to extend the protection to individuals using apps to safeguard biometric data and provide greater transparency to individuals

Policy Proposal: The Biometric Data Protection Act of 2023

Section 1: Purpose

The purpose of this act is to provide comprehensive protection to individuals' biometric data, specifically facial recognition data, fingerprints, voiceprints from misuse, abuse, and theft. This act will establish standards for companies storing biometric data, ensuring that sensitive information is protected and the privacy of individuals is maintained. This means that the use of said biometric data will only be legal under warranted circumstances such as identification and verification. It will also require companies to implement strong security measures, data governance, and ensure that they are in compliance with all relevant regulations.

Section 2: Definitions

For the purposes of this act, the following definitions apply:

- (a) "Biometric data" means any personal information that is based on unique physical or behavioral characteristics that can be used to identify an individual, including but not limited to facial recognition data, fingerprints, voiceprints, and other biometric identifiers.
- (b) "Company" means any individual, corporation, partnership, limited liability company, association, or other legal entity that collects, stores, or uses biometric data.
- (c) "Data subject" means an individual whose biometric data is collected, stored, or used by a company.
- (d) "Encryption" means the process of converting information or data into a code to prevent unauthorized access.
- (e) "Consent" means a legally binding signature authorizing the biometric data to be shared with specific entities, to be named explicitly in the request.

¹²⁹ "Health Insurance Portability and Accountability Act of 1996 (HIPAA)." <https://www.cdc.gov/phlp/publications/topic/hipaa.html>. Accessed 11 Apr. 2023.

Section 3: Protection of Biometric Data

- (a) Companies with more than 50 employees must implement strong security measures to protect biometric data. These measures should include but not be limited to:
 - (1) Encryption of biometric data (fingerprints, voiceprints, face) when in motion or at rest.
 - (2) Use of firewalls and antivirus software to reduce external threats.
 - (3) Clear data retention/destruction policies to avoid theft of data.
 - (4) Strong authentication mechanisms to ensure that only authorized individuals can access biometric data.
 - (5) Regular security audits and risk assessments to identify potential threats.
- (b) Companies must not share BIOMETRIC DATA with any third party without explicit CONSENT of the individual whose data is being shared.
- (c) Companies must establish clear procedures for collecting, storing, and deleting biometric data.
- (d) In the event of a data breach involving biometric data, companies must notify affected data subjects without undue delay.

Section 3(e): Collection and Use of Biometric Data

- (a) Companies may only collect biometric data that is necessary for the specific purpose for which it was collected. This includes but is not limited to facial recognition data, fingerprints, voiceprints, and other biometric identifiers. Companies may not collect any additional biometric data beyond what is necessary for the specified purpose, and may not collect biometric data that is deemed unnecessary or irrelevant to the specific purpose for which it was collected.
- (b) Companies may not collect biometric data without the explicit consent of the individual whose data is being collected.
- (c) Companies may only use biometric data for the purpose for which it was collected, unless the individual whose data is being used provides explicit consent for a different purpose.
- (d) Companies must make their collection policy easily accessible to individuals whose data is collected.
- (e) Companies must delete biometric data once it is no longer necessary for the specific purpose for which it was collected, unless the individual whose data is being stored provides explicit consent for the data to be retained for a longer period.

Section 4: Compliance

- (a) The Federal Trade Commission (FTC) will have the authority to enforce this act.
- (b) The FTC will have the power to impose fines and other penalties on companies that violate this act.
- (c) The FTC will have the power to conduct investigations and audits to ensure compliance with this act.

(d) Companies found to be in violation of this act may be required to undergo periodic audits and risk assessments to ensure ongoing compliance.

(e) The FTC will have authority to determine which businesses fall under the purview of the Small Business Administration and are eligible for fine waivers.

Section 5: Severability

If any provision of this act or the application thereof to any person or circumstance is held invalid, the remainder of the act and the application of such provisions to other persons or circumstances shall not be affected thereby.

Section 6: Effective Date

This act shall take effect one year after the date of its enactment.

Section 7: Funding

(a) The implementation of this act will be funded through appropriations made by Congress.

(b) The funds appropriated for this act shall be used to carry out the provisions of this act, including but not limited to the enforcement of this act by the FTC.

(c) The Secretary of Health and Human Services shall provide technical assistance to companies to facilitate compliance with the requirements of this act.

(d) The Secretary of Commerce shall provide assistance to companies to facilitate the adoption of new technologies to comply with the requirements of this act.

(e) The Secretary of Homeland Security shall provide technical assistance to companies to enhance their cybersecurity measures and prevent breaches of biometric data.

(f) The Secretary of the Treasury shall provide funding for the implementation of this act through the allocation of appropriations to the appropriate agencies.

(g) The FTC shall use the funds appropriated for this act to carry out the provisions of this act, including but not limited to the enforcement of this act and the conduct of investigations and audits.

Legislative Analysis:

Our proposal ensures that *all* biometric data is forced to be protected. It bolsters national security and citizen's data from falling into hands of enemy countries, raising international privacy standards.

The act aims to protect a person's biometric data including facial recognition, fingerprints, voice data, which helps prevent misuse and abuse of an individual's personal data, aiming to protect a person's privacy.

This act makes companies implement increased security measures, such as biometric data encryption, antivirus software, and security audits in order to protect against data breaches.

This act also requires companies to be in regulation and compliance with current regulations in order to maintain maximum security that can be used, and to ensure correct practice of biometric data.

This act helps prevent unnecessary biometric data storage, in order to ensure that biometric data of an individual isn't used in malpractice, reducing the risk of data theft, malpractice, and unauthorized access.

The act includes strong authentication techniques in order to ensure only people who are authorized can access the biometric data, adding an extra layer of security.

Unfortunately, "strong" protections don't establish a clear standard. "Strong" is a term that depends on the technologies at the time, judgment can be used to compare a set of protections to the industry standard.

Having clear data protection regulations can help make a bare line standard for companies to follow, ensuring that they are taking the accurate measures to protect user data whether or not of the technologies available at the time.

Fines and regulations can be made to take into thought the resources of companies, to avoid a burden on small businesses. Additionally, venture capitalists often invest in companies with a plan for compliance, and small companies can seek support from experts to navigate the data protection regulations.

Companies may have to face additional burdens in adding these strong data protection regulations which may increase cost for companies and operational complexities which may be unwanted.

The act may require technical proficiency and special expertise, harmful to small companies for those with limited resources to implement such policies.

Making strong data protection measures may initially increase costs for companies, but the potential costs of data breaches can be much higher. Investing in data protection can also help build customer trust making potentially higher revenue in the long run.

While technical proficiency may be required for adding data protection measures, there are resources available, including guidelines, frameworks, and services, that can support companies, including small ones, in implementing these policies.

There is a potential hindrance that this act may be overly restrictive, limiting companies' purpose to use biometric data in a legitimate manner, such as authentication and security purposes.

There may be a lack of consistent standards and guidelines for implementing these measures, which could lead to confusion and inconsistency in compliance efforts.

Clear and detailed standards and guidelines for implementing data protection measures can actually give clarity for companies and simplify efforts. Industry groups, regulatory groups, and legal experts can work towards establishing such standards to ensure consistent cohesion across companies and industries, reducing confusion and inconsistency.

Conclusion:

Technology is omnipresent in modern society. Devices used by hundreds of millions of Americans such as cell phones and laptops are constantly collecting and sharing information. Recently, there has been substantial discourse over the use and sale of such information and a reevaluation of privacy rights in the digital world. In response, states have passed laws including the California Consumer Privacy Act to regulate how companies may use such information. One aspect that remains largely unexplored is biometric data, the collection of which has been enabled by fingerprint sensors, 3d cameras and other technology that is often embedded in everyday devices like iPhones. As this data is extremely sensitive and identifiable, we propose the Biometric Data Protection Act, legislation which would recognize the sensitive nature of such information and extend protections along the lines of HIPAA. In order to ensure the privacy and security of our citizens, it is imperative to extend existing medical and personal information privacy protections to include these new types of data.

Innovation Data, and Commerce: Trade Summary Memo

Members: Adam Nisman, Anay Shah, Ava Keshavarzi, Diya Mittal, Karthik Sanga, Leo Terman, Neal Malhotra, Nicolas Williams, Paul Fong, Zack Lovell

Introduction

In a time of unprecedented semiconductor investment, the United States is facing a critical shortfall of qualified manufacturing workers. US chip makers are already grappling with a tight labor market, and new fabs will require an additional 70,000 - 90,000 workers to operate. Without fab workers, the US will be unable to build a robust semiconductor industry.

Additionally, the US has many firms invested in research and development for semiconductors, but very few firms on the manufacturing side. This is why more firms actually producing the semiconductors is needed. Adding more firms will increase innovation in the production process and allow the workforce to be more efficient and produce greater amounts of semiconductors and chips.

The government and certain private companies have recognized this problem and are actively trying to resolve this, but they lack a cohesive plan to make a significant difference. Companies like Wolfspeed have recently opened “fabs” to catch up to Taiwan, which is the current leader in this industry. The problem with this fab is that it will not be able to address the current chip shortage, it is an undertaking meant to help future crises. For the US to regain this industry, it has to create a plan to establish itself as a dominant chip-maker with the correct people and resources. Currently, with only a handful of independent companies allied by the CHIP act, there needs to be more of a conscious effort in driving innovation in this industry.

Allocate funding to post-secondary schools in order to create “chip schools” that will train students in all areas of modern chip production, as well as serve to guide students toward career opportunities in semiconductor manufacturing. These “chip schools” would have the latest equipment in semiconductor manufacturing in order to prepare students for the workforces as well as support innovation in order to best educate those who will run the future of the semiconductor industry. If the US wants to be a larger holder in the semiconductor industry in the future it needs to start with educating students to be in that industry.

Give a tax cut to small businesses in the semiconductor production industry. The purpose of this is to further drive innovation in the production process along with the bolstered workforce. Furthermore, this would bring more firms into the industry increasing the general volume of semiconductors and necessary technologies needed to support US interests.

This bill would serve to build the workforce the CHIPS Act needs to succeed in rebuilding the American semiconductor industry as well as bolster the CHIPS Act's investments in improved STEM education.

Proposal

- Grants and investments to fund new state of the art training facilities at American universities.
- Funds to greatly expand the number of community colleges with semiconductor degrees.
- Work with the semiconductor industry in order to build a modern curriculum in semiconductor research and development.
 - Work directly with manufacturer and other experts in order to gain the best information
 - Create a direct path for students to go from post-secondary institutions to the semiconductor industry.
- Implement a temporary tax cut for businesses in the chip industry.
 - To qualify for the tax cut, firms must meet a certain quota of production based on their respective sizes (by employees).
 - The tax cut will be regressive; As firms grow larger in size, the size of the tax cut will decrease as the firm is more stabilized in the industry.
 - The regressive tax cut will exist until the economy reaches a certain threshold set by lawmakers when the economy is able to produce enough chips to consider the supply chain "secure."

In addition to the proposed plan to allocate funding for chip schools and offer tax cuts to small businesses, another solution to address the critical shortfall of qualified manufacturing workers is to increase immigration. The United States can attract highly skilled workers from other countries who can contribute to the semiconductor industry and fill the shortage of workers in the manufacturing side.

By welcoming more skilled workers, the US can address the workforce shortage in the semiconductor industry and maintain its competitiveness in the global market.

To facilitate this, the government can streamline the visa process for highly skilled workers in the semiconductor industry, making it easier for companies to hire them. The government can also offer incentives to highly skilled workers who choose to work in the US semiconductor industry, such as expedited citizenship or permanent residency status.

Moreover, the US can collaborate with other countries and universities to further programs that allow foreign students to continue studying and work in the US after graduation. This will help

to attract more talent to the US semiconductor industry and improve diversity and innovation in the workforce.

Legislative Analysis

This bill would have bi-partisan support. It supports small businesses and encourages more companies in the industry, instead of continuing to give oligopoly power to a few firms. It protects national security and adds skilled workers to the industry. Students will be more educated about chips, allowing more people able to participate in the industry in the future.

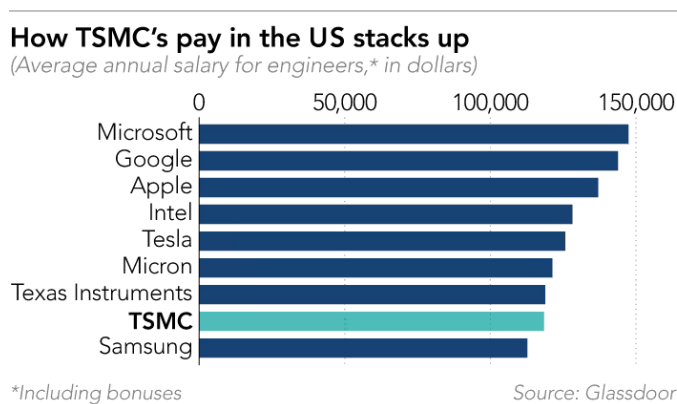
The [CHIPS Act](#) relies on large industry players and doesn't support innovation from smaller companies. It gives \$81 Billion to the National Science Foundation for STEM education and more equitable research opportunities, but lacks funding to upgrade and expand facilities, and train the workforce. The broad investments proposed for STEM education are not enough to educate students to work in the semiconductor manufacturing industry.

The bill builds a new pathway for STEM students to enter chip manufacturing across the country. It creates facilities to expand R&D efforts and ensures the diversification of R&D and manufacturing in the semiconductor industry by preventing the consolidation of the industry around premier research universities and industry giants.

Increasing immigration can help address the shortfall of qualified manufacturing workers in the semiconductor industry. By welcoming skilled workers from other countries and offering incentives, the US can maintain its competitiveness in the global market, though it will be hard to create bipartisan support for immigration reform measures.

Students can only fulfill future demand for fab workers, so fabs that open soon will still require skilled engineers in a very tight labor market. While this is unfortunate, there is not an extremely urgent demand, and we could see results within 2 years.

Semiconductor companies may still struggle to compete with other sectors in attracting engineers. By reviving this old, originally American, industry, the sector could prove very lucrative for both the companies themselves and engineers. Working in a booming industry offers more chance for expansion in their jobs. While this will always be a problem, this bill will still increase the labor workforce.



Conclusion

By giving these tax breaks to small businesses in the industry, semiconductor technology will develop significantly allowing the US to foster competition and innovation across the supply chain. New firms are incentivized to join the lucrative industry because the tax breaks will make semiconductor production more profitable.

We will see increased innovation due to larger sector competition, as well as a larger research labor force. Our bill creates alternative STEM pathways for post-secondary education, including additional support to vocational pathways.

The increased workforce in the US semiconductor industry will secure the future of advanced chip production. Increased US semiconductor production in the future will allow for the US to be less dependent on other countries such as Taiwan for its semiconductor manufacturing supply.

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Product Liability Subgroup:

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Third Party Advertisement and Transparency Act

I. Introduction

Data breaches are constantly happening where users are unaware of how companies even received access to their data. For example, T-mobile recently had a data breach that affected nearly 40 million people, including people who had never had an account with T-mobile.¹³⁰ Users still lack transparency on what happens to their data once authorized entities have it. Data is constantly sold to third party advertisers which is why many people who have never directly given their data to certain corporations find that these corporations have access to it. We hope that this new bill gives more transparency to users when choosing to accept or decline cookies, informing users upfront on which third parties could potentially have access to their data, instead of subjecting them to dive through extensive privacy policies. With this bill, we aim to provide people with more control and awareness over where and with whom their data goes to. We firmly believe this policy successfully clarifies the intent of primary parties with regards to user data access to third parties. Laws regarding consumer data privacy tend to be vague and outline what is not permitted while failing to outline what must be done. H.R.8152 is currently introduced into the House of Representatives and it does address transferring information to third party organizations. Specifically, it prevents this transfer without a factor of consent and emergencies.¹³¹ However, this bill fails to acknowledge third party access to data with regard to advertising and a consumer's right to know who their information is being given to for advertising purposes. We hope to fill this gap with this bill by requiring that companies clearly acknowledge any third parties that could potentially have access to the data that a user consents to giving.

II. Proposed Policy

We propose that federal law enshrines a right for citizens to inquire companies that have given their data out without explicit acknowledgment of who has potential access to data. Entities that fail to comply with this act are subject to fines that will contribute to a committee budget. Fines are determined by the size of a company. Small businesses are not subject to fines greater than \$250 per breach to a third party. The implementation of this policy is fiscally reliant solely on companies. It is their duty to their consumers to implement this act. To oversee the implementation and hold companies accountable, a committee should be created with annual reports to gauge the implementation process amongst companies.

¹³⁰ The New York Times. (2021, September 6). *The State of Consumer Data Privacy Laws in the US (and why it matters)*. The New York Times. Retrieved April 12, 2023, from <https://www.nytimes.com/wirecutter/blog/state-of-privacy-laws-in-us/>

¹³¹ *Text - H.R.8152 - 117th Congress (2021-2022): American data privacy and ...* (n.d.). Retrieved April 12, 2023, from <https://www.congress.gov/bill/117th-congress/house-bill/8152/text>

The purpose of this policy is to allow users more transparency with who has access to their data and which third parties are given access as an extension of giving first parties access. We believe this policy further clarifies the intent of primary parties and what they plan to do with user data in relation to third parties. If we restrict targeted advertising on user data, we can reduce improper use of user data from bad actors. By expanding the FCC's power to also oversee internet data usage, As data breaches continue to happen, user data is being taken even though it was never specifically given to that particular party.

III. Legislative Analysis

This policy also allows for more transparency with users while allowing them to continue prior advertising practices. It ensures that primary parties are upfront and transparent about the information they collect and sell in relation to third parties. This bill could additionally promote competition and innovation within the tech industry and companies through requiring increased transparency to consumers. The legislation should also provide guidelines on what types of data can be sold for advertising purposes. For example, it could allow for the sale of non-sensitive data, such as demographic information, browsing history, and search history, but prohibit the sale of sensitive data, such as health information, financial information, and social security numbers.

Furthermore, the legislation should specify the conditions under which data can be shared. For example, it could require third parties to have a legitimate business interest in using the data and to only use the data for the purposes for which it was originally collected.

To ensure that this legislative proposal can be effectively enforced and not overly burdensome for corporations, it is essential to allocate adequate funding to enforcement mechanisms. This funding should be used to create a dedicated regulatory body, likely under the FCC, responsible for overseeing data collection, processing, and sharing practices. The regulatory body should have the authority to impose fines and penalties on corporations that violate the regulations.

To encourage transparency in data selling without being too burdensome on corporations, this bill should require primary parties to provide clear and concise information about the data they collect and how it is used. This information should be easily accessible and understandable for users. The bill could also require primary parties to obtain explicit consent from users before sharing their data with third parties.

To promote competition and innovation within the tech industry, the bill should require companies to disclose their data handling practices publicly. This will enable users to make informed decisions about which companies they want to share their data with. Additionally, the bill could include provisions that incentivize companies to improve their privacy policies and data handling practices.

To address concerns from industries that rely heavily on targeted advertising, the bill should provide clear guidelines on how companies can collect and use data for advertising

purposes. This will ensure that companies can continue their prior advertising practices while promoting transparency and informed consent.

Overall, the Third Party Advertisement and Transparency Act has the potential to be a significant step forward in protecting consumer privacy and promoting responsible data usage practices. By balancing the needs of businesses and the rights of consumers, this bill can help to create a more equitable and trustworthy online environment for everyone. By promoting transparency and informed consent, this bill can help to create a more equitable and trustworthy online environment for everyone.

IV. Conclusion

Policies must be implemented for more clarity on consumer rights and the liabilities of companies. This policy aims to hold first parties liable for giving information to third-party entities. In the long-term, this policy provides users with upfront transparency as to where their data could potentially go with regard to third-party companies and advertisements. The realm of data privacy can feel vague at times for many people, so we hope that this bill helps users secure more data privacy rights while still allowing companies to continue prior advertising practices.

Members: Natya Chandrasekar, Sadie Gracon, Claire Lu, Natalie Wong, Julia Zeitlin

ECG Green Jobs Summary Memo

I. Introduction

If the nation continues to rely on the burning of fossil fuels to power our homes and buildings, potent greenhouse gasses (GHGs) will continue to release into the atmosphere, further increasing the detrimental impacts of the climate crisis. As GHG levels rise, so do temperatures, sea levels, and the annual number of extreme weather events.¹³² The climate crisis caused by these emissions, however, does not impact citizens of the United States equally. Low-income communities of color are most adversely impacted by these weather events and trends. In order to mitigate the deadliest impacts of climate change and the subsequent inequalities of these impacts, we must use renewable energy sources to power our buildings and eliminate the use of gas-powered appliances that contribute to dangerous indoor air quality and global warming.

The students of Congresswoman Anna Eshoo's Student Advisory Board propose the implementation of a program that addresses economic inequality and environmental destruction brought on by climate change. We propose the implementation of a green jobs training program that trains low-income individuals to become electricians with special expertise in making electric installations of appliances such as heat pumps and electric stoves as well as expertise in the installation of green energy sources like solar panels. Recent legislation such as the Inflation Reduction Act and Infrastructure Investment and Jobs Act provide massive economic incentives through rebates and tax credits for Americans to transition their homes and vehicles to become electric.¹³³ These policies are creating the need for a new workforce of individuals equipped to use and install green technology and appliances. The Inflation Reduction Act contains some job training programs but they rely on the state to solicit the grants they provide. Our policy is a federal program that executes these trainings through the government and does not rely on outside institutions for implementation.¹³⁴ This green job training proposal would help create this thriving workforce and empower the communities most disenfranchised by the climate crisis, to become a part of the solution in bettering our climate.

II. The policy proposal

Given the detrimental health and environmental impacts of burning natural gas, we propose the creation of a program that will fund an electrification job training program that equips low and middle income individuals with specific skills to make electric installations in homes and commercial buildings. Our policy aims to create a new workforce specifically trained

¹³² <https://www.npr.org/2023/01/09/1147805696/climate-change-makes-heat-waves-storms-and-droughts-worse-climate-report-confirm#:~:text=Climate%20change%20makes%20heat%20waves,droughts%20worse%2C%20climate%20report%20confirms&text=via%20Getty%20Images-,Rescuers%20dig%20a%20spillway%20to%20release%20flood%20waters%20after%20heavy,floods%20about%20twice%20as%20likely.>

¹³³ <https://www.congress.gov/bill/117th-congress/house-bill/5376/text>

¹³⁴ <https://www.energy.gov/scep/state-based-home-energy-efficiency-contractor-training-grants>

to take on the increasing number of green jobs available throughout the country. To more clearly define the key terms referenced throughout our proposal, we have outlined them below:

- Train: job training corresponds to the organization of educational programs that will teach young adults at community colleges and trade schools to become future members of the green workforce.
- Specific skills: this training will provide individuals with “specific skills” including in-depth knowledge of electric appliances (such as heat pump water heaters, air source heat pumps, geothermal heating, electric stoves, electric car chargers, etc.), knowledge and hands-on experience in the installation of solar panels, manual expertise with green infrastructure for roads/public spaces/commercial buildings, having hands on experience to learn how to handle and implement them in homes and commercial buildings.
- Sustainable jobs: sustainable jobs correspond to jobs centered around electrification (the process of replacing gas appliances with electric and solar installations) and working on government-funded green infrastructure projects.

The program will use several financial methods to incentivize both potential students and educational partners, including community colleges, vocational schools, and trade schools, to develop and participate in the program:

- Providing one free meal per student if the program time is scheduled over a traditional mealtime during all program sessions.
 - If a student is already on an accredited college meal plan, they will not be afforded this free meal.
- Making the program free by providing full and sufficient grants to each student to cover the fixed cost of the program.

It is also important to note how climate change disproportionately affects underprivileged communities. Therefore, our policy addresses these inequalities by providing people from underprivileged communities with accessible training workshops and programs.

The program will require several methods of funding. Additionally, since each local implementation of the program may have varying costs based on factors such as rent, accessibility of instructors, and more, an exact cost per location cannot be determined at this time. Here are the funding methods that will cover the cost:

- Allotting a sufficient amount of the Department of Energy (DOE) budget to this program.
- Removing funding from fossil fuel subsidies and putting those funds towards this program instead.

- Taking an extra 5% in taxes, in addition to other tax liabilities a student is responsible for, off of each student's monthly wage for the first 3 months of the first non-green job they take following completion of the program.
 - Should the student take a green job following completion of the program, this extra tax will not apply.
 - If the student switches from one non-green job into another non-green job before the first 3 months is up, the tax will apply to the new job for the remaining months left on the 3 month schedule.

III. Legislative analysis

This proposal will allow for increased accessibility to jobs by providing people with an alternative to a traditional 4-year college education and allow many participants to immediately enter into the workforce. The program will help people develop a technical skill set, which is beneficial to many who don't have access to a college degree. Meanwhile, it will also grow the number of qualified and trained employees to work in green jobs, thus motivating companies, businesses, and municipalities to move towards clean energy.

The largest foreseen obstacle to widespread support for our policy is that this program will require substantial federal funding, which is likely to face opposition from fiscally conservative politicians. Specifically, those who have historically opposed spending to combat global warming. We predict our program will cost around \$400 per student, estimating based on the average cost of a three-credit-hour community college course.¹³⁵

While some representatives may disapprove of allocating large funds to fight global warming, there are benefits to our proposal that extend beyond the climate crisis. The program will allow people in underprivileged communities to become highly trained professionals in a skill, thus enabling them to obtain jobs without a college degree and potentially decreasing unemployment. Additionally, companies will have a larger population of employees to choose from, all of whom are skilled and qualified.

IV. Conclusion

We predict several long-term outcomes of this program. First, our educational partners will have a foundation upon which they can build more robust green job training programs independently. Second, our students will have access to an ever-expanding and increasingly necessary job market, while private nonprofits and companies will finally have eager prospective employees to bring their sustainability initiatives to life. Finally, our students' work on green infrastructure will—quite literally—build the environmentally friendly world that both Congress and their allies are fighting to bring to fruition.

Our program connects deeply to the larger issues within the Energy, Climate, and Grid Security subcommittee. In general, demand is on the rise for green infrastructure, green waste policies, and green power, but the supply of workers to build those projects, work on the ground

¹³⁵ <https://educationdata.org/cost-of-a-college-class-or-credit-hour>

implementing those policies, and spread the technology that enables green power is still insufficient. Our program actively brings supply to the demand of private and public institutions to stop climate change, and thus acts as an integral part of the broader economic solution to this issue.

Environmental Justice: Addressing Socioeconomic Inequalities in Natural Disaster Prevention and Relief

Ryan Azuma, Sarah Wong, Aarthi Venkatraman, Betul Serra Tulu, Claire Lu

Since 1980, the United States has faced 254 climate and weather disasters, with damages and relief efforts costing over \$1.7 trillion on a federal level. In major natural disasters such as Hurricane Katrina, almost 1,800 lives were lost, with damages of nearly \$100 billion from a singular event. In major natural events such as these, minority families and those in poverty are almost always impacted disproportionately. Low-income families are more likely to live in areas that are more susceptible to storm shocks, and only 17% of these families have flood insurance¹³⁶. African-American families are most likely to face severe tornado damages¹³⁷, and added difficulties in financial recovery and relocation after major disasters only perpetuate these inequalities. Past legislation, such as the Post-Katrina Emergency Management Reform Act,¹³⁸ helped address key systemic issues within organizations like FEMA that prevented them from providing full aid or relief; however, FEMA aid continues to have major restrictions and can be inaccessible to families following major crises. FEMA relief does not yet apply to undocumented households, and households who have any type of insurance do not qualify for any costs covered by insurance¹³⁹. Insurance companies, on the other hand, are not required whatsoever to provide any specific aid outside of the contract, which is less than many people expect to receive, meaning that families can be left behind with neither federal nor private aid following a major climate crisis. The implementation of widespread subsidized catastrophe insurance could make an impact on this. In addition to insurance, grants to build highly effective infrastructure in impacted communities will prevent high-cost damages, increase equality, lower need for post-disaster federal aid and address a multitude of other challenges. In an effort to address systemic issues that perpetuate inequality in federal natural disaster responses, we propose to address several basic issues that contribute to this inequality, allowing FEMA to better provide emergency relief to low-income families of color.

In an effort to create a more equitable form of disaster relief, we propose to shift some of the resources that FEMA provides, in order to help families of color, undocumented immigrants, and low-income families during a major climate crisis, with special emphasis on hurricane relief. Primarily, funds will be sourced by diverting a portion of FEMA's budget to focus on establishing the proper resources, advertising and protocol to give low income families the ability to access the resources that are available to them. In order to properly address issues like immigration status, it would be crucial to find and employ workers such as immigration

¹³⁶ Krause, E., & Reeves, R. V. (2017, September 18). *Hurricanes hit the poor the hardest*. Brookings; Brookings. <https://www.brookings.edu/blog/social-mobility-memos/2017/09/18/hurricanes-hit-the-poor-the-hardest/>

¹³⁷ Tornadoes, poverty and race in the USA: A five-decade analysis | Emerald Insight. (2021). *Journal of Economic Studies*, 49(7), 1304–1319. <https://doi.org/10.1108/JES>

¹³⁸ U.S. Department of the Interior. "Relevant Disaster Legislation and Materials | U.S. Department of the Interior." DOI Gov, U.S. Department of the Interior, 2006-2013, <https://www.doi.gov/recovery/about-recovery/disaster-laws>. Accessed 30 March 2023.

¹³⁹ Federal Emergency management Agency. "Eligibility Criteria for FEMA Assistance." *FEMA*, FEMA, 28 November 2022, <https://www.fema.gov/assistance/individual/program/eligibility>. Accessed 30 March 2023.

attorneys, who can help families in need tackle red tape in terms of getting emergency aid despite their citizenship status. At present, it is not possible for an undocumented immigrant to receive full cash aid, but with proper legal aid, they can apply for relief assistance through a US-citizen child, or pursue other forms of local and state aid that they are eligible for. This regulation should be changed so that all US residents can access the resources that they need, but would be coupled with the other resources to accomplish these things immediately after a crisis.

Additionally, one of the largest barriers to FEMA aid is access to the internet and documents necessary for the application¹⁴⁰. If a family's home has been completely wrecked, or a region is left without power for days on end, it can be difficult to find the necessary proof of ownership of a house, or to even access FEMA websites for details on aid applications. These issues are more likely to affect minorities and low-income members of the community, who likely do not have the funds to escape during natural disasters and will also be more likely to live in neighborhoods with poor internet infrastructure¹⁴¹. In an effort to combat this, a portion of the budget for this project would focus on creating more stations in and around the areas of a natural disaster, which families can visit for more information and help in reapplying for aid following a crisis. This budget would not need additional funding from taxpayers, but instead would focus on restructuring internal FEMA organizations to allocate a specific budget for on the ground, immediate relief during a disaster.

As of right now, flood insurance is failing us. Floods are the largest natural disasters and most expensive, with FEMA estimating that one inch of flood water could cause up to twenty-five thousand dollars in damages. With sea levels also on the rise, even more areas are becoming susceptible to the harrowing damage of floods. Thus, the United States created the National Flood Insurance Program (NFIP) in 1968 to deal with the impacts of flooding. However, this program is heavily flawed, having over twenty billion dollars in debt and an extremely tedious and slow process in order to get the insurance. Furthermore, the agency uses outdated flood maps, these maps are used to determine and inform communities about low-lying areas that are vulnerable to flooding. The NFIP has no way or structure that allows for flood maps to be changed or adapted to include the effects of climate change. In fact, a study published in the *Environmental Research Letters* predicted that the number of Americans exposed to serious flooding is three times higher than the previous estimates that the NFIP uses. Moreover, no complete and comprehensive estimate of the entire United States exists and many of the areas have poor coverage of creeks and streams. Not only does this feed false information to many homeowners, it leaves them unprotected from floods which destroy their houses and livelihoods.

Thus, we would like to reform the National Flood Insurance Program so it is up-to-date and adequately protects the citizens of the United States. First, the United States should update

¹⁴⁰ Federal Emergency Management Agency. "Eligibility Criteria for FEMA Assistance." FEMA, FEMA, 28 November 2022, <https://www.fema.gov/assistance/individual/program/eligibility>. Accessed 30 March 2023.

¹⁴¹ Federal Emergency Management Agency. "When can I expect to receive reimbursement for my eligible lodging expenses?" FEMA, FEMA, 17 May 2022, <https://www.fema.gov/node/when-can-i-expect-receive-reimbursement-my-eligible-lodging-expenses>. Accessed 30 March 2023.

⁷ United Nations. (n.d.). THE 17 GOALS | Sustainable Development. Sustainable Development Goals. Retrieved April 12, 2023, from <https://sdgs.un.org/goals>

its maps and assessments, so instead of using technology from the 1900s, we have modern data that can accurately predict the risk of flooding in the United States. Furthermore, with this updated map should come updated standards. The NFIP should revise its regulations to account for the increase in flooding so that there will be safer and stronger development to deal with the possibility of weather-related disasters. Citizens will then be more aware of natural disasters in their area and have a higher inclination to purchase flood insurance. Moreover, their houses will be safer and more secure, decreasing the long-term costs of rebuilding and aid. Both of these changes to the NFIP will ensure the safety and protection that the people of the United States deserve.

Another pathway to create lasting solutions to disaster damages is through infrastructure. Not only will reallocating funds to disaster mitigation create a higher standard of equality in emergency federal aid and likely lower FEMA costs in the future, addressing these barriers provides a multitude of other benefits, as outlined in the UN Sustainable Development Goals⁷. A use of natural barriers, water management and man-made structures provides the most effective prevention of natural disasters, commonly known as green, blue and gray infrastructure, and can be used to address other concerns as well. Natural barriers, such as forests and coastal development increase air quality and if well incorporated into existing community design, can be used as public recreation areas contributing to improved public health, wildlife refuge and land management. In addition, natural barriers remove greenhouse gas emissions furthering progress towards sustainable cities and addressing the climate crisis. Better water management can improve life below water, and create higher access to clean water and sanitation for communities who lack it. A focus on innovative technology that will allow the U.S. to function more independently in the future, such as green energy, will utilize underused resources and weaken dependency on waning oil supplies. Improvement in progress towards these values will increase equality in low income communities, strengthen international partnerships, and help position the U.S. as a leader in sustainable infrastructure.

Equipping FEMA to carry out these actions is preferable over other legislation because it utilizes the expertise of an organization that is committed to helping those who, in a crisis, likely will have nowhere else to turn. FEMA assistance usually must be applied for within 60 days, so to have a team on the ground after a catastrophe is one of the strongest ways to stop perpetuating past injustices of federal relief following hurricanes. These modifications would also create the space for a more self-correcting process; rather than a one-time reallocation of funds, FEMA would be able to analyze their performance following each disaster and improve their response time and resources before the next crisis.

Most often, critics question the need for a program like this. Past analysis of hurricanes, however, shows that the reformations suggested would only provide aid to communities who have historically lacked any such assistance during times of need. A five-decade analysis, for example, has shown a direct correlation between race, poverty, and the severity of damages during tornado disasters. Almost 230,000 people died in the 2010 Haitian earthquake, in a country where nearly 6 in 10 live on less than \$2 a day. FEMA aid typically constitutes less than

\$6,000¹⁴², and to this day, no major reforms have been made to improve the accessibility of FEMA aid regardless of immigration status. This program would provide assistance only to those who have been marginalized by the federal and state governments time and time again. It would be targeted to strengthen critical industries on which the U.S. relies, and to permanently lower costs of federal aid.

Furthermore, others have criticized the long-term efficacy of such a program, as disaster relief is usually focused on meeting short-term needs of monetary assistance. In an effort to go one step beyond this, part of the program's goal will be to provide assistance that will prevent families from facing major damages in any future disasters as well, which will constitute a large majority of the allotted budget for this program. For example, as families come in for relief following the destruction of a house, part of the program's duty will be to help provide families with details and aid in not only recovering after the loss of a house, but also in finding shelter that is already raised above ground level. Raised houses are one of the most effective forms of hurricane and flood safety¹⁴³, and can help prevent further damages to a house in the event of such a disaster. This goal will help to create a more permanent solution for injustices within federal aid for natural disasters¹⁴⁴.

In order to effectively address the implementation of infrastructure and accessible insurance, it is prudent to first address the issue of effectively allocating resources. In addition to the current FEMA flood maps, a comprehensive display of the areas commonly affected by other disasters such as wildfires and hurricanes should be created, and consistently updated. Factors such as per capita income, and population should also be represented. This information should be available to the public, so that communities affected can divert resources to disaster preparedness and utility companies operating in partnership with the state can be notified to make necessary adjustments to ensure higher access to fundamental services. While this may in some ways be detrimental to the residents of these communities, through the possibility of higher insurance rates and potentially lower property values, these risks are already assessed by insurance companies and required to be disclosed by those selling their homes. So in effect this information is public knowledge to the detriment of those living in disaster prone areas, but not available as a resource with crucial benefits. In the following sections, these issues will be further addressed.

With the aid of highly accurate disaster surveys, it is also important to assess other measures of critical data. Identifying outdated infrastructure and infrastructure that is susceptible to massive failure is an essential practice. Then considering factors such as the population,

¹⁴² Milligan, S. (2018). The Forecast for Recovery. US News & World Report; U.S. News & World Report. <https://www.usnews.com/news/the-report/articles/2018-09-21/hurricanes-hit-everyone-but-the-poor-have-the-hardest-time-recovering>

¹⁴³ Office, A. (2023). Federal Money for Disaster Recovery and Resilience Could Be Spent Better. Gao.gov. <https://www.gao.gov/blog/federal-money-disaster-recovery-and-resilience-could-be-spent-better>

¹⁴⁴ Office, A. (2023, March 15). Disaster Assistance: Action Needed to Improve Resilience, Response, and Recovery. Gao.gov. <https://www.gao.gov/products/gao-23-106544>

percentage of insured households, per capita income, barriers to insurance and whether or not the area has required repeated FEMA post-disaster insurance, the disaster map can then be divided into districts prioritized by need and potential effectiveness of development. Reallocating some FEMA funds and raising funds through other means if needed, will cover the cost of a selected number of annual sustainable development projects aimed at decreasing overall FEMA costs, benefitting impacted communities, and strengthening infrastructure that will also address secondary issues outlined by the U.N.

In order to ensure equitable distribution of resources, aid should be granted at the discretion of FEMA, solely based on assessment of need. Any interference or pressure from potential recipients or others, should be strictly prohibited and consequences should be established prior to any distribution of aid or investment. FEMA should also regulate project budgets and what issues must be addressed by the investment. Then, in partnership with the local government of the recipient region, related concerns should be established. Once approved, the project should be assessed to achieve the highest possible standard of quality and longevity at the lowest possible cost. Builders contracted to the project should be held accountable to the quality of the work and paid accordingly. After four years if the communities addressed require consistently lower levels of post-disaster FEMA aid or demonstrate higher levels of infrastructure resiliency, the program should be renewed for another four-year period.

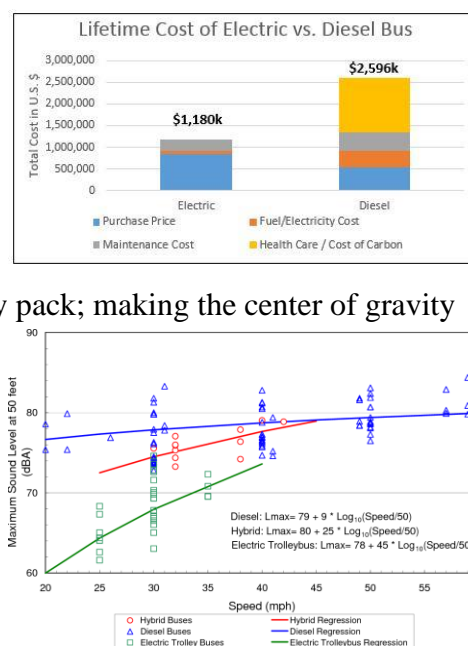
Areas of crucial and relatively stable industry with large populations of migrant or undocumented workers should be identified and allocated funds for housing projects that will resist storm damages. Undocumented immigrants face significantly more barriers to post-disaster aid, but these workers are required for the success of many essential industries, a plan should be made to prevent significant damage to these communities. Building housing and needed infrastructure in agriculturally productive areas with large populations of migrant workers is an investment in the future productivity of the businesses. FEMA should also update federal aid for undocumented individuals so that they can receive the same aid as those with citizenship. Cooperation with major employers and widely available resources in a variety of languages will be essential to reach these necessary workers.

In order to address the detrimental impact that major natural disasters have on minority and low-income families, insurance policies and infrastructure must be improved. We propose to do so by better equipping FEMA to provide emergency relief to minority communities, increase disaster mitigation efforts, and provide higher insurance coverage. This program will focus on providing assistance to those who may be at risk of facing major damages in a future natural disaster. The efficacy of our proposal lies in its potential to address the root causes of environmental injustice and promote a more equitable distribution of environmental benefits and burdens. By prioritizing the needs of marginalized communities and promoting resilience, we can work towards a more sustainable and equitable future.

Memo — Diesel/Gas Bus Moratorium
Electric Vehicles Subgroup
Energy, Climate, and Grid Security Subcommittee
Matthew Mueller, Lincoln Withrow, Chetan Kurkure, Patrick Van Hoven,
Matt Sadyk Erlan

1. Introduction

Yellow school buses have been an iconic part of America's schools for decades. However, diesel school buses are technologically and environmentally outdated compared to electric buses. Electric school buses have zero emissions, lower operating costs (Graph 1), and reduced residential noise pollution (Graph 2), which ultimately makes the neighborhood cleaner and safer for children. Furthermore, these buses are safer than traditional buses due to their battery pack; making the center of gravity extremely low, which greatly reduces rollover risk, increases handling, and makes the bus safer in a collision. This proposed bill accelerates the transition to greener transportation and sets a defined timeframe (by 2040) in which results are to be expected. There are previous examples of legislation in this field, such as the American Rescue Plan (ARP), passed in 2021, which provides funding for electric school buses.¹ However, these previous bills fail to address the fact that there is no existing timeframe which requires the transition to take place. This policy will work in tandem with the existing grants to provide quota expectations for the transition.



2. Policy Proposal

By January 1st, 2040, all active school buses within elementary, middle, and high school districts must be powered by an electric power source or zero emission equivalent.

Transportation in the US makes up for 29% of all carbon emissions, and school buses are responsible for a large percentage of those emissions.¹⁴⁵ This proposed moratorium will significantly reduce transportation emissions within the US, in addition to improving air quality within school campuses and surrounding neighborhoods.¹⁴⁶ Furthermore, electric school buses contain modern safety measures and equipment, leading to decreased injuries and death among commuting students. These buses will be funded by a combination of funding from individual school districts and state education departments, private investors, and supplementary funding

¹⁴⁵ <https://www.energy.gov/eere/articles/electrifying-transportation-benefit-every-american>

¹⁴⁶ <https://laelectrictruckandbus.org/electricschoolbuses>

from the EPA's Clean School Bus Program—to support school districts, the Environmental Protection Agency (EPA) has recently increased its electric school bus fund to over one billion dollars a year for the next five years, allowing many school districts to receive reimbursements for electric bus purchases.¹⁴⁷

3. Legislative Analysis

Our bill increases the number of sustainable vehicles and reduces CO₂ and other greenhouse gas emissions. Electric buses are quieter than diesel buses which can be beneficial when driven through neighborhoods and other community areas.

We'll see healthier air quality as no exhaust or fumes are being produced. Air pollution can cause diseases like asthma, cardiovascular disease, and cancer. Our proposal will also help to create clean energy jobs which can boost the economy and provide many with work.

There is an expensive up-front cost compared to diesel buses. Even though electric buses have a higher up-front cost, the long term payment is much less as the bus does not need diesel to be refilled on a weekly basis. While electricity isn't free, it is far less expensive than diesel.

Limited charging infrastructure exists to power these buses. Demand for expanded charging and electricity will bring about new innovation and industrialization in the energy provision sector that will increase the number of chargers for buses.

Electric buses have limited range, which requires careful route planning and conserving charge can help to combat this as well as the development of new technology to increase the range. Ethical questions exist around the provision of materials, especially forced child labor in lithium and cobalt mines.

4. Conclusion

The 2040 electrification deadline for school buses is an important step towards a more environmentally friendly and modernized public transportation sector. Currently, about 95% of school buses nationwide are diesel, dispensing harmful pollutants into the air with every ride.¹⁴⁸ These buses collectively dispense over 19 million tons of greenhouse gas emissions per year.¹⁴⁹ Studies have even shown that pollution from diesel buses harms the kids that ride them.¹⁵⁰ If adopted, the 2024 electrification deadline could reduce greenhouse gas emissions by over 10

¹⁴⁷ <https://electrek.co/2022/09/30/epa-doubles-electric-school-bus-funding-almost-1b/>

¹⁴⁸ <https://www.wri.org/insights/where-electric-school-buses-us>

¹⁴⁹ <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockkey=P10153PC.pdf>

¹⁵⁰ <https://www.ehhi.org/reports/diesel/dieselintro.pdf>

million tons per year, given that electrifying one bus eliminates over 50,000 pounds of emissions per year.¹⁵¹ Given the established precedent of recent national subsidies—the EPA recently announced \$5 billion in electric school bus subsidies over five years—an electrification deadline provides a crucial incentive to modernize public transportation, and builds upon recent green energy legislation. If adopted, the 2024 electrification deadline is likely to improve public health and wellbeing and is guaranteed to reduce the environmental impact of our transportation sector.

¹⁵¹ <https://www.dominionenergy.com/virginia/save-energy/electric-school-buses>; multiplied the number of diesel buses in the US (about 475,000) by the number of tons of GHG emissions (25) saved per electrification/conversion.

Aarthi Venkatraman, Jennifer Cruden, Kameswari Mantha, Ryan Oberweis-Manion

Grid Security Summary Memo

As the US makes the move toward electrification as a means to combat climate change, the grid must grow to accommodate it. In fact, according to the International Energy Agency, the US needs to more than double its investment in smart grids by 2030 to set the groundwork to attain the Net Zero Emissions by 2050 goal.¹⁵² In addition to expanding the grid, it will become increasingly imperative to protect it from the two main types of threats it will continue to face: natural and human. This proposal targets natural threats.

Natural disasters and even moderate to extreme weather can damage the grid in those places where it is most vulnerable. In the recent California storms, hundreds of thousands of homes lost electricity for days.¹⁵³ With the changing climate, we can only expect to see an increase in severe weather and natural disasters. While recent legislation has focused on funding to bolster these parts of the grids to protect them from such weather (the recent Bipartisan Infrastructure Law (2021), for example, includes \$65 billion to upgrade the grid's resilience)¹⁵⁴, it will always be hard to ensure that every part of the grid has sufficient protection against the next natural disaster. Moreover, it would be beneficial if a clear and long-term strategy/system was established to deal with renovating grid protection. Our proposal aims to create a system that not only helps us understand where protection is needed, but also provides the tools to efficiently deal with grid weather damage once it is brought about, saving homes and buildings from long periods without the electricity that is bound to become ever more crucial.

We propose to form a committee to oversee the creation of a digital twin of the national grid. The digital twin will provide an accurate, standardized model of the physical grid, increasing transparency, allowing for low-risk testing, and enabling a quick response to grid threats. Currently, the grid is controlled by various parties with different methods of maintenance. While some private companies have begun to implement digital twins, our proposal aims to increase communication, transparency, and standardization by establishing a national digital twin. Numerous studies examining strategies to increase grid stability have found the digital twin approach to be highly effective, citing benefits such as the ability to run security tests on the twin without disrupting the actual grid.¹⁵⁵ Additionally, creating a digital twin would help combat a major issue the US grid currently faces: delayed responses to power outages. GE Digital Senior Vice President and Chief Technology Officer Colin Parris explains how issues like climate related severe weather and aging infrastructure contribute to an

¹⁵² Iea. "Net Zero by 2050 – Analysis." *IEA*, www.iea.org/reports/net-zero-by-2050. Accessed 12 May 2023.

¹⁵³ Sackur, Leila. "Hundreds of Thousands Left without Power in California as Forecasters Warn of 'relentless' Cyclones." *CNBC*, 8 Jan. 2023, www.cnbc.com/2023/01/08/hundreds-of-thousands-left-without-power-in-california-as-forecasters-warn-of-relentless-cyclones.html.

¹⁵⁴ "Fact Sheet: The Bipartisan Infrastructure Deal." *The White House*, 29 Mar. 2023, www.whitehouse.gov/briefing-room/statements-releases/2021/11/06/fact-sheet-the-bipartisan-infrastructure-deal/.

¹⁵⁵ Atalay, Manolya & Angin, Pelin. (2020). A Digital Twins Approach to Smart Grid Security Testing and Standardization. 435-440. 10.1109/MetroInd4.0IoT48571.2020.9138264.

increasing number of power outages.¹⁵⁶ A digital twin could utilize cross-domain models and multidisciplinary software to predict outage risk during extreme weather, detect outages in real-time, and maintain closed loop control over the grid during a time of crisis. This data could help the government anticipate which areas of the grid are most susceptible to physical damage and respond quickly when disasters occur.

As the primary authority over the grid, the Department of Energy's Federal Energy Regulatory Commission (FERC) will be responsible for housing the committee. If needed, they can partner with and/or borrow funding from the Department of Defense, as a national digital twin would enhance the resilience of the US grid against cyberattacks.¹⁵⁷ The committee will regulate private companies to develop standardized digital twins, then integrate them into a national network. This approach is currently being implemented in Great Britain by National Grid ESO, whose framework can serve as a valuable starting point.¹⁵⁸ Based on National Grid ESO's funding (in addition to other sources, they received £150,000 from the Strategic Innovation Fund in early 2022 for the initial discovery phase of this project)¹⁵⁹, we propose an initial allocation of half a million dollars. Following a two-year planning phase, during which the committee will develop an implementation blueprint and initial data frameworks, funding will be reassessed. The committee will then receive another round of funding for the five-year implementation, aligning with National Grid ESO's five-year timeline according to head of innovation strategy and digital transformation Carolina Tortora.¹⁶⁰

Our proposal protects consumers from suffering long periods without electricity through the creation of a digital twin, which ensures that any damage to the electric grid can be monitored and restored quickly. Additionally, the digital twin will assist the widespread installation of smart grids, which largely incorporate a renewable energy system. To help reach the United States' environmental goals, the digital twin can be utilized to monitor and reduce the carbon emissions of the grid. As we increasingly rely on electrification to battle climate change, the modernization of the grid is essential to its accommodation.

¹⁵⁶ Parris, Colin. "Riding the Storm: A Network Digital Twin to Enhance Electric Grid Reliability & Resiliency." *How GE Digital's Network Digital Twin, STORM, Enhances Grid Reliability* / GE Digital, <https://www.ge.com/digital/blog/riding-storm-network-digital-twin-enhance-electric-grid-reliability-resiliency>.

¹⁵⁷ Md. Mhamud Hussen Sifat, Safwat Mukarrama Choudhury, Sajal K. Das, Md. Hafiz Ahamed, S.M. Mueen, Md. Mehedi Hasan, Md. Firoj Ali, Zinat Tasneem, Md. Manirul Islam, Md. Robiul Islam, Md. Faisal R. Badal, Sarafat H. Abhi, Subrata K. Sarker, Prangon Das, Towards electric digital twin grid: Technology and framework review, *Energy and AI*, Volume 11, 2023, 100213, ISSN 2666-5468, <https://doi.org/10.1016/j.egyai.2022.100213>.

¹⁵⁸ Topalov, Milan. "National Grid ESO to Develop Digital Twin of Britain's Energy System." *Current News*, 5 Jan. 2023, www.current-news.co.uk/national-grid-eso-to-develop-digital-twin-of-britains-energy-system/#:~:text=National%20Grid%20ESO%20has%20launched,scenarios%20that%20will%20support%20decarbonisation.

¹⁵⁹ "National Grid ESO Receives Strategic Innovation Fund (SIF) Grant to Advance Development for Digitising Great Britain's Energy System." *ESO*, www.nationalgrideso.com/news/national-grid-eso-receives-strategic-innovation-fund-sif-grant-advance-development-digitising. Accessed 12 May 2023.

¹⁶⁰ Chevin, Denise. "The Challenge of Twinning the National Grid." *BIM+*, 24 Nov. 2022, www.bimplus.co.uk/the-challenge-of-twinning-the-national-grid/.

Members: Aaron Bao, Jasleen Sidhu, William Tu, Sarah Weintraut, Katie Doran, Eliezer Rudolph-Harris

ECG Renewable Energy Summary Memo

Introduction:

With the advent of increasingly effective sources of renewable energy, we are at a watershed in the quest towards a future of clean energy. Considering recent landmark legislation by the EPA, it is all the more imperative that our grid is capable of supporting these new suppliers of energy and is aligned with these policies. However, our grid in its current form is simply not equipped to deal with additional changes, with outdated infrastructure and little access to renewable sources of energy. Modernizing our grid to adapt to these new issues remains a critical priority for carrying through a greener vision of the future.

Background:

Renewable energy sources such as wind and solar power are gaining popularity due to their environmental benefits and decreasing costs. However, integrating them into the existing grid infrastructure presents a significant challenge due to their intermittent nature. Unlike traditional fossil fuel-based power generation, renewable energy production is dependent on weather conditions and not always available on demand. Thus, ensuring a stable and reliable electricity supply from renewable sources requires a well-designed and adequately sized grid infrastructure that can address the issues associated with these sources.

The capacity required for a grid to support renewable energy varies based on factors such as the type and mix of renewable sources, local climate, and energy demand of the area. The global renewable energy capacity increased by 45% between 2010 and 2020, reaching 2,799 GW, according to the International Renewable Energy Agency (IRENA)¹. However, to meet the Paris Agreement targets, this capacity is expected to double by 2030. Furthermore, by 2050 it is expected that 94% of energy produced in the United States will come from renewable energy sources. However, in order to support this, 930 GW of energy storage power and six and a half hours of capacity will be needed⁵.

Incorporating renewable energy into the grid infrastructure requires significant investment, including the infrastructure needed to manage the unpredictable nature of renewable sources such as energy storage, the energy demand of the area, and transmission upgrades. According to research by the National Renewable Energy Laboratory (NREL)², integrating renewable energy into the grid could cost anywhere from 0.5 to 5 cents per kWh, depending on the location and available technology.

Supporting renewable energy on a grid is a complex issue that depends on various factors, such as the availability and mix of renewable sources and the existing grid infrastructure. The Union of the Electricity Industry estimated that achieving a 55% renewable energy share by 2030 in Europe would require reinforcing the grid with 150 GW of new interconnectors and 50 GW of storage⁴.

Proposal: Clean Grid and Energy Storage Infrastructure Act of 2023

We propose to allocate \$50 billion dollars over the course of 10 years. The Department of Energy will determine the distribution of funds to different states, municipalities, and utilities in order to establish a national standard for regional grids to prioritize integration of renewable energy sources and create a grant program to facilitate the upgrade of transmission infrastructure and energy storage facilities. This will require each region to develop a plan to increase the share of clean electricity in its energy mix, with specific targets for each year. The initial requirement will be 30% clean electricity by 2027, increasing to 50% by 2030, and 90% by 2035.

In order to enable regional grids to comply with these regulations, the Department of Energy will create a Clean Grid Infrastructure Grant Program to provide financial assistance to states, municipalities, and utilities for upgrading and expanding transmission infrastructure and energy storage facilities to ensure the integration of clean energy sources and increase the capacity for renewable energy transmission from rural areas to urban centers. The grant program will be funded with \$50 billion over ten years.

Finally, the Department of Energy will increase funding for energy storage research and development, including the development of new technologies to improve energy storage efficiency, safety, and reliability. The Department will also provide technical assistance to states and utilities to develop and deploy energy storage systems, ensuring that grids will be able to effectively implement these measures.

Analysis & Impact:

Although there may be many obstacles confronting this development, as discussed previously, in the long run the return on investment both economically and in terms of public health and safety are overwhelming and greatly outweigh the initial deterring factors.

For one, grids currently don't have the capacity to truly harness renewable energy, as energy storage is severely lacking. Many argue that it's unrealistic to rely on renewables like wind and solar due to their lack of consistency, however with better storage technology and utilizing our current forecasting technology, this challenge is easily surmountable. With the money invested into energy storage research the modern grid will become just as reliable as fossil fuel energy, possibly even more so.

The greatest challenge, per usual, is the cost that comes with such a proposal. Alone, the cost sounds absurd, however by government standards it is by no means expensive in comparison. According to Human Rights Watch, the government spends an estimated hundreds of billions of dollars in fossil fuel subsidies every year. To actually hit our current goal of 90% renewable energy by 2035, we must give our money and attention to renewable energy instead of pouring endless amounts of money into fossil fuel companies to mine for more petroleum. Further, President Biden and Vice President Harris announced in 2022 a \$13 billion plan to modernize the grid; this cost pales in comparison, and specifically addresses modernizing the

grid for renewable energy. Not only is the cost reasonable in the face of what the government spends on fossil fuels and what it is already spending, it is also beneficial in that it (a) stimulates the economy and (b) better public health and safety.

- (a) In changing the grids to cater to renewable energy, the government helps transition the economy from fossil fuels to renewables by guiding investment. Investors eager to be a part of the new generation of clean energy will see this as a go-ahead to invest further in energy storage technology and implementation, creating new markets that will ultimately help drive cost down and efficiency up for renewable energy. Moreover, investment in research and a new grid will create millions of jobs, compensating for the loss of jobs in the fossil fuel industry during the transition.
- (b) The most important benefit of all, by implementing this plan Congress takes another step to guarantee the safety and well being of its current and future citizens. Renewable energy has innumerable benefits ranging from cleaner air and therefore less respiratory ailments to a decrease in deforestation and land degradation. Invisible benefits from the restoration of ecosystem services greatly outweigh any temporary economic benefits of staying with a grid championing fossil fuels.

Though cost and storage capacity are both clear obstacles in implementing this proposal, there is a clear solution to each such problem. Private investors coupled with increased government spending (taken from the enormous fossil fuel subsidies doled out annually) more than cover the cost, and the part of the proposal that focuses on storage technology development will make these modern, renewable grids reliable.

Furthermore, the affordability of energy is a climate justice issue. The U.S. Energy Information Administration finds that 27% of U.S. households struggle to pay their energy bills or meet their energy needs; these households are also disproportionately Black, Latinx, and/or Hispanic. Almost one in five households have forgone necessities like food and medicine so that they could afford electricity and heating. As we work to transition towards green energy, it's important to recognize that energy access is also a key part of economic and social justice. With many marginalized families struggling to access the energy they need, better infrastructure, funding, and support for the energy transition is all the more imperative.

Low-income households currently spend a disproportionate amount of their income on electricity and heating: one in four American households spend 6% or more of their income on energy costs, and two out of five low-income families spend 10% or more. With renewable energy offering promising opportunities to lower costs in the long term, helping facilitate this transition is critical. By offering funding to help communities overcome the up-front costs of renewable energy infrastructure, our proposal can lower long-term energy costs for families who should not have to spend such high portions of their income on energy.

All Americans can gain from stronger, more sustainable grid infrastructure which paves the way for green energy sources. This proposal can offer those benefits while also charting a

path towards climate justice by providing specialized, local funding for green energy infrastructure in the communities that need it most.

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Oversight and Investigations Subcommittee: Campaign Honesty

Quincy Dennedy, Camryn Nuckles, Sanjna Shah, Stella Abodeely

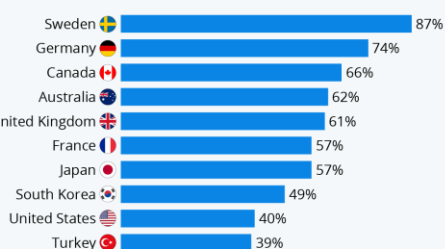
SECTION 1:

1. Introduction

Only 40 percent of adults are confident in the honesty of elections in the United States.¹⁶¹ Even election officials confirm this lack of transparency: 78 percent of election officials surveyed by the Brennan Center said that social media, where mis- and disinformation about elections both took root and spread, has made their job more difficult.¹⁶² In fact, misinformation disrupting the democratic process has been exemplified throughout the 2020 election cycle, in which both Russia's cyber efforts and Trump's "big lie" about the results were able to influence public perceptions and voters' trust in election outcomes.¹⁶³ Instances of campaign dishonesty coupled with low confidence have contributed to decreased civic engagement and voter turnout. In a survey by Howard University's Digital Informers, 26% of respondents believed that their vote did not count.¹⁶⁴

Where People Have Faith In Their Elections

Percentage of adults confident in the honesty of elections in selected countries



n=1,026 (April 23-May 23, 2019)
Source: Gallup

statista

However, the implementation of a directory of election officials to review social media posts on elections offers a potential solution in not only false election claims, but also an increased trust for politicians and voter turnout. By ensuring that media presented to the public through the internet is credible, the American public can be assured that they can rely on the information given to them during elections. A fact-checking procedure for all social media, including politician's posted information, will continue and increase trust, influencing people to vote more and become more involved in the government.

The [Honest Ads Act](#) subjects internet ads to the same regulation rules as TV and radio ads, meaning foreign entities are now unable to purchase online ads that mention political candidates. The Act also increases overall transparency by allowing the public to see who bought an online

¹⁶¹ McCarthy, N., & Richter, F. (2020, February 13). Where People Have Faith In Their Elections. Statista Infographics. Retrieved April 11, 2023, from <https://www.statista.com/chart/20823/percentage-of-adults-confident-in-the-honesty-of-elections/>

¹⁶² Brennan Center for Justice. (2023, March 8). Election Officials Under Attack. Brennan Center for Justice. Retrieved April 11, 2023, from <https://www.brennancenter.org/our-work/policy-solutions/election-officials-under-attack>

¹⁶³ Sanchez, G. R., Middlemass, K., & Rodriguez, A. (2022, July 26). Misinformation Is Eroding the Public's Confidence in Democracy. Brookings. Retrieved April 11, 2023, from <https://www.brookings.edu/blog/fixgov/2022/07/26/misinformation-is-eroding-the-publics-confidence-in-democracy/>

¹⁶⁴ Sanchez, G. R., Middlemass, K., & Rodriguez, A. (2022, July 26). Misinformation Is Eroding the Public's Confidence in Democracy. Brookings. Retrieved April 11, 2023, from <https://www.brookings.edu/blog/fixgov/2022/07/26/misinformation-is-eroding-the-publics-confidence-in-democracy/>

political ad. Nevertheless, this Act only addresses who bought the political ads, and it fails to check for the actual content of the claim being made that can promote misinformation.¹⁶⁵

2. Policy Proposal:

The Federal Communications Commission will oversee the creation of a directory of election officials who are authoritative sources on the elections they administer, crucial to campaign honesty, establishing voter trust and confidence. This government body will conduct fact checks on distributed election information, politician's posts, and other content related to ongoing elections in order to prevent the spread of misinformation and breaching of election rules on social media platforms. If it is determined that information has been wrongly fabricated, the politicians in question will be stripped of their committee assignments and/ or the post will be removed from the social media site.

Modern election processes have been severely manipulated by misinformation spread through social media. We see the prevalence of this problem with false election claims of the 2020 election and unverified information on media outlets such as Facebook. These cases hinder democratic processes and disrupt the foundation of elections which Congress has the responsibility to combat. Reviewing distributed election information and content related to elections after publication by a directory of elected officials would directly solve this problem.

In order to fund this policy, we will allocate money to the FCC to establish and monitor the creation of an archive of election officials to make sure election rules are not violated on social media platforms during ongoing elections, and which voters can reach out to to learn more about election information, increasing voter confidence and knowledge.

3. Legislative analysis:

The idea that social media has the power to impact elections has become a popular narrative in recent years. Social media platforms, and the abuse of the platforms, have caused further political polarization. In recent elections, fraud on social media has proved to be a threat to democracy. The abuse of social media platforms, and findings following major elections have instilled a sense of mistrust within American voters. Social media is a primary source of

¹⁶⁵ 179. (2022, April 12). The honest ads act explained. Brennan Center for Justice. Retrieved April 11, 2023, from <https://www.brennancenter.org/our-work/research-reports/honest-ads-act-explained>
Hananel

Director, Sam, et al. "Social Media and the 2022 Midterm Elections: Anticipating Online Threats to Democratic Legitimacy." Center for American Progress, 11 Apr. 2023, <https://www.americanprogress.org/article/social-media-and-the-2022-midterm-elections-anticipating-online-threats-to-democratic-legitimacy/>

information for a majority of voters, and has the power to influence the way people vote. It is essential that systems be implemented to build voter confidence and trust to ensure fair and well informed elections.

This policy will cause debate over what it means to abuse social media platforms. Many will argue that this infringes on first amendment rights, and that this would constitute government censorship.

Successful elections took place long before the creation of social media – by decreasing the power social media, more specifically misinformation on social media, has on elections, voter confidence will increase, and people will no longer be unintentionally misinformed by social media.

First amendment rights to freedom of speech are protected unless one makes and distributes obscene materials which present a threat to constitutional principles as established by the Supreme Court case *Schenck V. US*. Falsified election information and politician biographies constitute electoral fraud and serve to hinder democratic policies and mislead voters which disrupts fair elections, the foundation of our democracy.

4. Conclusion:

Our proposal strives to create long-lasting significant impacts by ensuring voter confidence and security, leading to more constituents voting; this change will allow our elected officials to be chosen by the largest number of people possible, offering more diversity of thought and opinion. The fact checking of election information and politicians biographies and resumes spread will also increase trust in American politics by the people, making voters aware of the qualifications and policy promises of those running for office. Comparing numbers of voters after our proposal is in effect to prior numbers will show an increase in voters and voter confidence, bettering American politics.

The Oversight and Investigations subcommittee is responsible for conducting research and inspection of any matter related to the jurisdiction of the committee. Our proposal will work to lower the amount of instances caused by social media and misinformation and lack of campaign honesty, giving the Oversight and Investigations subcommittee more time to analyze other issues and matters of concern that are taking place. This shows the other effects of our proposal as well as how it will better the subcommittee as a whole.

5. **Footnotes** - [APA Style](#) (you can use NoodleTools or another credible citation generator);
in docs: insert → footnotes

Lobbying / Campaign Finance Subcommittee

Members: Lois Woo, Nolan Murphy, Katie Diederich, Karina Aronson, and Jashun Kalra
Insider Trading in Congress

I. Introduction

Congressional officials conducting personal stock trades has been a recurring issue, diminishing the trust of the people in their lawmakers. Examples of this can be seen in times of economic difficulty such as the 2008-2009 financial crisis and the COVID-19 pandemic.¹⁶⁶ It is vital to reduce the conflicts of interest inherent in personal trading by incentivizing blind trusts for congressional officials. Despite the existing laws against direct insider trading, members trading stock corrodes public trust through the perception of policy based on self interest. For instance, those who own stock in chip companies may have suspect motives in directing government investment towards that industry. Our policy would be advantageous in creating more transparency around congressional finances, decrease potential conflicts of interest, and promote decisions that are most sincerely aligned to constituent's interests.

Although S.2038, the Stop Insider Trading on Congressional Knowledge Act (STOCK), discourages Members of Congress and congressional employees from using non-public information for financial gain (ie stocks, bonds),¹⁶⁷ reinforcing preexisting legislation banning insider trading. It also forces Members of Congress to disclose any trades; however, this act has had numerous failings due to lack of enforcement, low penalties, and blatant disregard for the rules. Ultimately, discoveries about late reports or failure to report trades erode public trust.

Insider trading been further exacerbated by the pandemic, which caused financial turmoil and uncertainty in global markets, prompting members of congress to act on insider knowledge.¹⁶⁸ Bills aimed at strengthening protections against insider trading by members of Congress have become increasingly common, with Senator Jon Ossoff introducing S.3494, Ban Congressional Stock Trading Act to the 117th Congress¹⁶⁹ and Senator Josh Hawley introducing S.58, Preventing Elected Leaders from Owning Securities and Investments (PELOSI) Act¹⁷⁰ in the 118th Congress. Although neither of these passed, both would have required Members of Congress to put their assets into a blind trust with varying degrees of repercussions for violations of these acts. Similarly, our legislation proposal aims to build on these acts by ensuring conditions in which congress people will place their assets in a blind trust.

¹⁶⁶ Gellaseh, T. (2020, March 25). *I Helped Write the Stock Act. It Didn't Go Far Enough.* . Politico. Retrieved April 10, 2023, from <https://www.politico.com/news/magazine/2020/03/25/congress-stock-trade-148678>

¹⁶⁷ U.S. Department of Health and Human Services. (n.d.). *S.2038 -- stock act*. National Institutes of Health. Retrieved April 9, 2023, from <https://ethics.od.nih.gov/STOCK-Act-S2038>

¹⁶⁸ Lachlan Markay, W. B. (2020, March 20). *Sen. Kelly Loeffler dumped millions in stock after coronavirus briefing*. The Daily Beast. Retrieved April 9, 2023, from <https://www.thedailybeast.com/sen-kelly-loeffler-dumped-millions-in-stock-after-coronavirus-briefing?ref=wrap>

¹⁶⁹ *S.3494 - 117th Congress (2021-2022): Ban congressional stock trading ...* (n.d.). Retrieved April 10, 2023, from <https://www.congress.gov/bill/117th-congress/senate-bill/3494>

¹⁷⁰ *Text - S.452 - 118th Congress (2023-2024): Nuclear fuel security act of ...* (n.d.). Retrieved April 10, 2023, from <https://www.congress.gov/bill/118th-congress/senate-bill/452/text?s=1&r=58>

II. Proposed Policy

We seek to build off the marginal success of the STOCK Act, specifically through its disclosure rule. As it stands, the STOCK act fails to adequately encourage members of Congress to place their assets in a trust. Our proposal aims to rectify this by both discouraging personal trading, and making the formation of a blind trust easier. What we propose is a significant time delay between disclosure and purchase of a stock. This would immediately de-incentivize personal trading, as any knowledge privy only to Congress would be obsolete by purchase. Members of Congress would be mandated to disclose stock purchases two weeks before finalizing the stock purchase. There would of course, be an option to withdraw the trade should the stock price be impacted in the interim. This would allow both non-congressional consumers to consider those purchases, as well as generally making any time-sensitive stock information obsolete. However, in addition to de-centivization of personal trading, our proposal aims to make blind trusts easier and more affordable for members of congress who may be entering without access to significant resources. Therefore, the federal government will establish a blind trust for any member of congress who wishes to participate, paying both for the establishment of the trust (\$1,000-10,000) and for an average trust management fee (0.5-1% estate value). With this system we would ensure both that personal trading is optional but unappealing, and that a blind trust is both easy and inexpensive for members of congress. We also hope that by maintaining the option of choice between personal trading and trust, we ensure a better chance of actual passage.

III. Legislative Analysis

To address the cons, the time delay may not be adequate to fully de-incentivize personal trading and like the STOCK act, members of congress could still find means to use inside information for profit. The mandating of the disclosure of stock purchases could negatively impact members of congress who have legitimate reasons for their trades; e.g. efforts to diversify trading portfolios. Some members of Congress also may not be able to afford the establishment of a blind trust. Providing options for Congress members to continue engaging in personal trading may push many members to take that route defeating the purpose of our proposal.

Addressing concerns about the delay not being long enough, our proposal in it's complete form could include additional measures like audits of Congress members' portfolios to ensure the rules are followed. To address concerns about legitimate trading reasons, the proposal could provide exceptions for some types of trades, which could include purchases through mutual funds or index funds. To address the concerns of cost, the proposal may include a sliding scale for government contribution for the establishment of the blind trust based on each member's income or net worth. About the options of choice, our proposal may include incentives for members who may choose to place their assets in a trust.

IV. Conclusion

Limiting the ability of congressional officials to abuse their elected positions through the stock market is an issue of utmost importance. By further reinforcing preexisting legislation, and establishing a more incentivized system of separation, Americans will gain assurance that their elected officials are not using their positions of power for financial gain. Ultimately, this will make legislative policy fairer and limit financial abuse in the system. This proposal would

represent a significant step to assuring the integrity and legitimacy of legislative actions, particularly those impacting the United States economy.

Oversight and Investigations Subcommittee

Members: Simona, Arjun, Chase, Sophie, Rachel

Partisanship Education and Discussion Act (PEDA)

I. Introduction

All 50 states in the United States require some form of civics/government class, but only about 283,353 students take AP US Government and Politics, which is the only class that requires education around partisanship meaning over 15 million students will have no idea about the impact of partisanship later in life and therefore can fall victim to its effects.¹⁷¹ Education about partisanship, or support for one political party often leading to political bias for that party, is crucial as high school students are the next generation of voters, and if they are solely party-line voting then our country will not have the most effective politicians in office as we could with educated voters. Education on partisanship is also crucial as it will help beneficial legislation pass on both state and federal levels as constituents will be able to choose beneficial legislation independently, instead of blindly following a party due to aspects like how their family or community identifies. We hope providing mandated education in high school on partisanship will help make high school students independent thinkers who will also be able to identify with a party based on agreement with the parties platform and work collaboratively with opposing policies. Due to the factor of political socialization of families, 71% adolescents retain the same political ideology as their parents which can be harmful as when the adolescents become adults, although they might have developed an individual alignment with that party, they haven't been exposed to the possible benefits of other parties policies leading to less open mindedness. Currently in California only one semester of American government is required as a graduation requirement. Cal. Code Regs. tit. 5 § 40404 requires students to learn “the Constitution of the United States and the operation of representative democratic government under that Constitution, and the processes of state and local government”, but it includes nothing on partisanship.¹⁷² Anna Eshoo herself states how she wanted to get students and young people herself involved in politics in order to make the kinds of changes that are important to move our country forward. Our goal is to help make the next generation of US citizens the most educated as possible.

¹⁷¹ *Statutes, codes, and regulations*. Legal research tools from Casetext. (n.d.). Retrieved April 12, 2023, from <https://casetext.com/regulation/california-code-of-regulations/title-5-education/division-5-board-of-trustees-of-the-california-state-universities/chapter-1-california-state-university/subchapter-2-educational-program/article-5-general-requirements-for-graduation/section-40404-requirements-in-united-states-history-constitution-and-american-ideals>

¹⁷² Packer, T. (2021). *AP U.S. Government and Politics Exam: 2021 results*. AP U.S. Government and Politics Exam: 2021 Results – All Access | College Board. Retrieved April 12, 2023, from <https://allaccess.collegeboard.org/ap-us-government-and-politics-exam-2021-results>

II. Policy Proposal

We propose a policy that provides high schools a program that educates students around partisanship. High school is a formative time for youth as it is when they develop their core beliefs and ideals through their friends, family, and social groups, as well as what they are taught in school. By educating them on partisanship, we can reduce the gridlock of the future Congress and prevent controversy and debate from delaying the policy-making process. This can be done through classes that discuss government and politics, for example, a unit in the Civics and Government course that goes into detail regarding the causes and effects of partisanship. This would be funded by political nonprofits that support bipartisanship and independence such as Bipartisan Policy Center and Bridge Alliance.

III. Legislative Analysis

Civic education at the high school level has been proven to have a number of benefits for the individual and for American democracy. First and foremost, civic education promotes informed members of a participatory democracy. A Harvard study on the benefits of civic education indicates that people who have had a rigorous civic education are more likely to understand policy proposals. More importantly, civic education has been shown to make people more likely to “participate in civic activities” and see political engagement as a means of addressing communal challenges”.¹⁷³ In other words, those who have had a more civic education are more likely to participate in civic discourse and would be more willing to truly engage in democracy. That would undoubtedly have cyclical positive benefits on democracy, as students age into voters, they will make more informed choices than their non-civically educated counterparts. Citizens with a high political efficacy will feel confident in their ability to defend their decisions, making it more difficult for people to attack their ideas and target party bias. According to a Brookings report schools have a unique role to play given their ubiquity to Americans. It is a space in which trusted adults can productively expose students to opportunities for civic participation and learning. Educators and peers are one of the greatest political socialization factors and therefore have the ability to directly influence students’ political activity. By working with young people in schools, we can create a new generation of Americans who are more willing and ready to be informed and participate in our democracy.

The ultimate goal of this proposal is to reduce partisanship and promote bipartisan legislation in the US government. As shown above, civic education has revitalizing effects on broad based understanding and engagement with democracy, which taken further, is a key step to reducing partisanship. A 2019 study found that implementing a particular type of course, which they called a Legislative Semester course, focusing on research and discourse, as opposed to memorization based courses, increased open minded political engagement.¹⁷⁴ This measure denotes students not only becoming more engaged with the political process, but also indicates

¹⁷³Levinson, M. (2011). Benefits of civic education: Increased equality and narrowed civic empowerment gap (J. Gould, Ed.). Harvard DASH. Retrieved April 12, 2023, from <https://dash.harvard.edu/handle/1/10861135>

¹⁷⁴Winthrop, R. (2020, June 4). The need for civic education in 21st-century schools. Brookings Institute. Retrieved April 12, 2023, from <https://www.brookings.edu/policy2020/bigideas/the-need-for-civic-education-in-21st-century-schools/>

that it was in such a way that they were open, and more flexible to different political views. In that sense, this sort of a course would break down the rigid barriers, and inflexible attitudes that contribute to polarization. If we were able to create this mindset among a majority of high school students, we would ensure that as they moved up the ranks not only of government, but as they became engaged voters, they would contribute to a more open, and debate based politics, rather superficial measures, which non-informed voters may resort to. Our proposed plan, which would focus on education relating to polarization, as well as discussions around polarization would in many ways model the Legislative Semester course, in that it would foster open debate, and would encourage students to think analytically about proposed policy plans, rather than along conventional lines, reinforced by more traditional methods of teaching.

In short, this policy attacks partisanship because it fosters discussion and interaction between people who don't necessarily share view points. A 2023 article indicates that one of the best ways to overcome partisanship is to break down the animosity that people with opposing viewpoints hold, viewpoints that are often formed from oversimplified generalizations of the other group. The plan would attack this in two ways: first it would give students the tools they need to understand, analyze, and have complex, in-depth, discussions about political topics, and second it would create that safe space to have these discussions, to create this interaction so that from a young age students can realize that they probably share more with the people who disagree with them than they thought.

A possible downside of this plan arises from the nature of the American school system. Much of the curriculum decisions rest with state and local governments, but more closely with school boards and school districts. That means there is an immense amount of variability across the nation on how these may be implemented. Especially with today's hyper partisan attitudes especially surrounding school curriculum, it may be difficult to achieve a ubiquitous implementation of this process across the board. That could have devastating effects, especially if politics at the school board/school district level are allowed to interfere with the curriculum. If students are only given part of the story in this curriculum, or one side is heavily favored, it would run counter to the purpose, and likely create contrary results. There are, however, two parts of this particular plan, which would hopefully avoid these issues. First is that the curriculum would focus, inherently, on debate. It would be built such that students are necessarily exposed to different points of views, so that ideally, any one student is able to not only hear from, but read and analyze a plethora of opinions. The second is the creation of the platform. The platform itself would allow the connection of students outside the jurisdiction of one school board, or one state government. Obviously there would be adult input to protect students on the platform, but they would be able to communicate, discuss and get to know one another, hopefully breaking the hold that local groups have on the process.

Apart from reducing polarization, civic education has been shown to have lasting positive impacts on the makeup of people who participate in our democracy. Civic education at younger ages has been shown to reduce the inequality of civic engagement later in life.¹⁷⁵

¹⁷⁵Levinson, M. (2011). Benefits of civic education: Increased equality and narrowed civic empowerment gap (J. Gould, Ed.). Harvard DASH. Retrieved

Equitable education in high school would give all students, regardless of background, an equal chance to be informed members of Democracy. Apart from the inherent positive impact of increasing civic equity, a more diverse voting population would theoretically increase the diversity of opinions and political views present in our system, ideally lowering the two-option mindset which contributes so strongly to polarization. A greater degree of civic education also leads to a greater learning of what are called “Twenty-First Century Competencies” which is a general term for skills students will need to be successful in the world. In an experimental study, students in classes that focused both on traditional civic education but also incorporated what was called an “open classroom climate”, in other words fostering discussion and debate, scored higher “on eight competencies including learning how to cooperate, following the news, believing that good citizens obey the law and voting”¹⁷⁶. Interestingly, increasing civic education also has beneficial effects on the dropout rate. Especially when the students are taught the importance of civic responsibility, they are less likely to drop out of high school.

IV. Conclusion

In closing, civic education has a number of positive benefits, but especially when paired with a classroom environment that promotes discussion and educates students about polarization and different points of views. Moreover, it has the ability to reduce polarization and promote more positive forms of discourse among the next generation of citizens. This also promotes campaign honesty by ensuring that free and fair elections are held rather than party-line voting as it helps constituents hold their elected officials accountable as votes are given by merit rather than shared party identification. Democracies are built on the ability to have discourse and thus, by training future generations to have positive and open debates that ultimately limit polarization, the future of democracy will be brighter than ever before.

April 12, 2023, from <https://dash.harvard.edu/handle/1/10861135>

¹⁷⁶Levinson, M. (2011). Benefits of civic education: Increased equality and narrowed civic empowerment gap (J. Gould, Ed.). Harvard DASH. Retrieved April 12, 2023, from <https://dash.harvard.edu/handle/1/10861135>

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